Table 3-74

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

Khok Nai I	Leaching Test Plot,	December '92			***	Ground Surface Level	evel : z=1.460m
	Δ.	ressure Head			:		:
Date	Depth : 10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Renarks
	z= 1.510m	z= 1.310m	z= 1.010m	nn/aay	mm/day	Kuno	:
						mm/day	
p-1		1	1	Į.		2.3	
2	- 5.576	0.748	- 0.68	3.2		2.4	
က						2.4	
7	-		1			1.2	
ഹ		1		•••		2.8	
9	-	1		ŀ		2.1	
7	1	ĺ	1	ŀ		2.5	
∞	0.00	0.00	0.00	0 6		2.5	1
6	0.00	0.00	0.00	8.0		2.5	
0 1	0.00	0.00	- 0.136	4.0		8 0	
FF	0,00	0.00	- 0.136	4.5		1.0	
1.2	0.00	0.00	- 0.136	2. 4		3.0	
	0.00	0.00	- 0.136	0		3.0	
	00.00	0.00	- 0.272	0		3.9	
	0.00	0.00	- 0.272	0		4.3	
	0.00	0.00	- 0.272	0		4.6	
	0.00	- 0.272	- 0.544	0.8		4.1	
	- 1.088	- 0.544	- 0,68	0		4.4	
	- 2.72	- 0.68	-0.816	0		3.6	
	- 5.168	- 0,952	- 0.68	0.3		2.2	
	- 6.936	- 1.088	- 0.544	0		4.4	
	- 3.944	- 0.408	- 0.408	6.7		2.2	
	0.00	- 0.272	- 0.544	30.0		2.9	
	0.00		- 0.544	10.5		Ţ-Ţ.	
	0.00	- 0.272	807.0 -	7.1		0.1	
	l		1	71.5		4.2	
			-	2.1		0.7	
2.8	0.00	0.00	0.00	1,0		2.5	
	0.00	0, 00	- 0.136	2.0		3.1	
	0.00	0.00	0.00	9.0		3.3	
	- 1.768	- 0.408	- 0.544	0		3.7	

Table 3-75

Tensioneter Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

Ground Surface Level : z=1.460m

Khok Nai Leaching Test Plot , January 93

Head			-		
	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	z= 1.010m	mm/day	mm/day	Muno	
				nn/day	
. (	- 0.408	0.5		4.0	
	- 0.544	0		6.0	
	- 0.544	0		3, 5	
. 1	- 0.544	9.0		2.5	
	-	10, 8	-	1.5	
		. 0		3,9	
		1		3.8	
		6.4		5.1	
İ		0		3,6	
,		0		3.4	
		. 0	-	4.3	
		0		4.0	
		1,1		4.5	
		3.6		2.0	
		0,3		0.7	
		0		3.8	
		1.2		4, 4	
		11.3		5.4	
		9.1		3.0	
		5.8		5.0	
		0		2.0	
j		3.8		4.9	
		19.0		3.8	
- 1		0		2.7	
		0		3.5	
		0		3.5	
		0		4.8	
		2.4		4.4	
Į		19.4		1.1	
		8.6		2.1	
				1	

Table 3-76 Tensiometer H

Khok Nai Leaching Test Plot , February 93

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

Ground Surface Level : z=1.460m

<u> </u>			•	Γ	Γ	-	Ι	Γ-	Γ-	Γ	·	-	Γ	Γ	Ι	_			Γ.	<u> </u>	Ė	<u> </u>	<u> </u>		Ė		Γ	<u> </u>	Ι	Ė	Ι	<u> </u>	·	Γ
	Renarks																																	
	Evaporation	Muno	mm/day	4.0	7 0	3.2	£	4.3	5. S	5,4	න <b>්</b>	5.6	6.4	4.7	4.7	4.6	4.3	6.0	4.6	5.0	5.4	6.0	4.9	4.5	4.7	4.8	7.2	5.0	3.9	3.5	5.1			
	Irrigation	mm/day																																
	Precipitation	an/day		0	18.1	3.6	0	0	.1		0	0	0.2	1.1	0.1		1	0	0	0	0	0			0	0	0	3.1	0	-				
	Depth : 60cm	z= 1.010m		- 0.408	- 0.544		- 0.272	- 0.272		-	- 0.272	- 0.408	- 0.68	- 0.68	- 0.544	1	-	- 0.544	- 0.544	- 0.544	- 0.68	- 0.68		-	- 0.544	- 0.68	- 0.68	- 0.68	- 0.476		<b>J</b>			
ressure Bead	Depth : 30cm	z= 1.310m		- 0.816	- 0.408	- 0.136		- 0.136	1	ì	- 0, 136		- 0.408	- 0.816	- 1.088			- 2.312		- 2.584		- 4, 352	1	1	- 5,304			- 6.12	- 5.712	1	-			
Б	Depth : 10cm	z= 1.510m		- 2.04	- 2.04	- 1.904	- 1.768		1		- 1.224	- 1.224	- 7.208	- 7.616	- 7.752			- 5.712	- 5,168		- 8.024	- 8.16	•		• • •	٠.	- 7.344	- 7.888	- 7.752	-	-			
<b>!</b>	Date				2	က	4	5	9	7	×	6	1 0				ı	· 1	1.6.		- 1	1		- 1		- 1			5 6		2 8	- 1	- 1	

Table 3-77

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

Depth : 10cm z= 1.510m						-	
Depth : z= 1.5	Pr	ressure Head					
Z= 1. 5	10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	10m	z = 1.310m	z= 1.010m	um/day	шш/day	Muno	
						mm/day	
1	480	- 3, 400	- 0, 408	0.0			
- 7	616	- 2.856	- 0, 408	0.6			
- 7.	616	- 2,584	- 0, 408	0.0			
1 1	752	- 3.264	- 0.544	0.0			
7.	7.752	- 3.740	- 0.544	0.0		-	
		1	١	1			
		1	1.	1			
ເດ ເ	984	- 1.496	- 0.680	7.3			
ا ج	984	- 1.904	- 0.680	0.6			
9	392	- 2.176	- 0.544	0.6			
- 6.	528	- 2.720	- 0.544	1, 5			
- 7.	616	- 2. 448	- 0.680	5, 2			
l			1	_		:	
- 2		- 0.272	- 0.544	2.1			
0	. 0	- 0.272	- 0.408	36. 4			
- 2.		- 0.408	- 0.544	0.0			
- 3.	. 40		- 0.544	7.8			
- 4	. 216	- 0.408	- 0.408	3.9			
			,				
				ì			
- 3.		- 0.272	- 0.272	0.0			
- 2	040	- 0.136	- 0.272	5.2			
- 2		-0.136	- 0.272	0.0			
7		- 0.136	- 0.272	0.0			
- 2		- 0.136	- 0.272	0.0			
	1	1	1				
•	1						
င္	3, 672	- 0.136	- 0.272	0.0			
ය 	. 672		- 0.272	0.0			
ו	3.808	- 0,136	- 0.408	0.0			

Table 3-78

Tensioneter Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the U1 plot

Pressure   Read   Precipitation   Precipitat	7517		00 10 12 13 11					
Depth: 10cm         Depth: 30cm         Depth: 60cm         Precipitation         Irrigation         Shaponation           z= 1.510m         z= 1.010m         x= 1.010m			ressure Hea					
z= 1.510m     z= 1.310m     z= 1.010m     mm/day     mm/day       -4.18     - 0.136     - 0.408     0.0     0.0       - 4.556     - 0.272     - 0.408     0.0     0.0       - 5.304     - 0.408     0.0     0.0       - 6.120     - 0.408     0.0     0.0       - 6.120     - 0.408     0.0     0.0       - 6.120     - 0.408     0.0     0.0       - 6.120     - 0.408     0.0     0.0       - 6.120     - 0.544     0.0     0.0       - 6.120     - 0.544     0.0     0.0       - 6.120     - 0.544     0.0     0.0       - 4.780     - 0.544     0.0     0.0       - 4.780     - 0.544     0.0     0.0       - 4.780     - 0.544     - 0.544     0.0       - 1.088     - 0.544     - 0.544     0.0       - 1.08     - 0.544     - 0.54     0.0       - 1.088     - 0.544     0.0     0.0       - 1.632     - 0.544     0.0     0.0       - 1.632     - 0.544     0.0     0.0       - 1.632     - 0.544     0.0     0.0       - 1.632     - 0.544     0.0     0.0       - 1.632     - 0.544	, ay	Depth : 10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		z= 1.510m	z= 1,310m	z= 1.010m	mm/day	mm/day	опп	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$						:	nn/day	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	·1	4.	0		0.0			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	4	o.	- 0: 408	0.0			
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ω ω	တ်	o,		0 0			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	6	ı	ΐ	- 0.544	0,0			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0		1					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	П	1	ı					
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	4.	0.		0.0			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ബ	4	c	- 0.544	3, 5			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	4	လျ	히		28.7			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		ᆌ	o		0.0			
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$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9	c.	o		0.0			
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	0	4	Ö	- 0.544	0.0			
- 6. 664     - 1. 088     - 0. 680       - 6. 596     - 1. 496     - 0. 680       - 6. 936     - 2. 720     - 0. 680       - 7. 344     - 3. 264     - 0. 816       - 7. 208     - 3. 672     - 0. 816       - 7. 616     - 4. 352     - 0. 816		က်	ं	- 0.544	0.0			
- 6. 596     - 1. 496     - 0. 680	2	6.	ij		0.0			
-     6.936     -     2.720     -     0.680       -     7.344     -     3.264     -     0.816       -     7.208     -     3.672     -     0.816       -     7.616     -     3.944     -     0.816       -     7.616     -     4.352     -     0.816	3	9	ij		0.0			
- 6.936     - 2.720     - 0.680       - 7.344     - 3.264     - 0.816       - 7.208     - 3.672     - 0.816       - 7.616     - 3.944     - 0.816       - 7.616     - 4.352     - 0.816	4			-	1			
-6.936     -2.720     -0.680       -7.344     -3.264     -0.816       -7.208     -3.672     -0.816       -7.616     -3.944     -0.816       -7.616     -4.352     -0.816	ഗ						: "	
- 7.344     - 3.264     - 0.816       - 7.208     - 3.672     - 0.816       - 7.616     - 3.944     - 0.816       - 7.616     - 4.352     - 0.816	9	တ	જાં		0.0			
- 7. 208     - 3. 672     - 0. 816       - 7. 616     - 3. 944     - 0. 816       - 7. 616     - 4. 352     - 0. 816	7	7.	3,	- 0.816	0.0			
- 7.616 - 3.944 - 0.816 - 7.616 - 4.352 - 0.816	30	7.	3	-0.816	0.1			
- 7.616 - 4.352 - 0.816	9	Ċ	က	- 0.816	0.0			
		<u> </u>	4		0.0			
	1							

Table 3-79

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

	mich mer zewiring rest itot, mag				5	מי מתוות פתווסט ועמעו	1 Z=1.400m	
	Р	ressure Head						
Date	Depth : 10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks	
	z= 1.510m	z= 1.310m	z = 1.010 m	mm/day	mm/day	Muno		
					:	vab/ma		
1		_						-1
2	1	Ē		*****				7
3	- 7.208		- 0.816	0.0				Τ
4	- 7.480		- 0.816	0.0				Т
2	- 7.616	- 6.528	- 0.952	0.0				T
9	- 7.752	- 6, 936	- 0.952	0 0				Т
7	- 7.752	- 7.208	- 0.952	0.0				1
8	1	1	ı					Т
ტ		ı	-	****				
10	- 7.888	- 8, 160	- 0.952	0 0				-
11		- 6.860	- 0.952	0.0				Т
1.2	- 7.208	- 7.752	- 0.816	0.0				7
1 3	- 7.344	- 7.344	- 0.680	0.0				η-
1.4	- 7.480	- 7.072	- 0.680	0.0				7
ာ ၂		1						-T
16	_	1		44-				Т
1.7	- 6.528	- 3.808	- 0.544	1.6				
1 8	- 2, 448	- 0.272	- 0.408	45.4				
	- 5,168	- 0.272	- 0.408	4.7				1
	- 4.216	- 0.408	- 0.408	4.3				T
	1		- 0.408	0.0				Т
	ľ	1	1					Т
		1	1	_				T
		- 1.224	- 0.544	0.0				1
	- 6.256	- 1.360	- 0.544	0.0				Т
		- 1.496	- 0.544	0.0				Т-
	- 7,616	- 1.632	- 0.544	0.0				T
		- 1.768	- 0,544	0, 1				1
2 9	***							T
							-	T
	- 6.392	- 2.720	- 0.680	0.0				т

Table 3-80

Tensioneter Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

					T	Γ		Γ	T	Ť		Ţ.						Γ	Ţ.	T :			Γ				Γ			Ī			
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-	itati	ı/day		0.0	0.0	0.85	0.0			2.2	8.1	0.0	ص س	1.4	ı	1	14.5	0.	0.0	0 0	0.0	1	1	0.0	0.0	0.0	0,5	3.9	ı	1	3.4	ت 0	2. 1
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		. 010		0.54	0.54	0.54	0.54	1	,	0.40	0.408	0.408	0.408	0.403	ı	1	0.275	0.27	0.27	0.40	0.54	1	1	0.68	0.68	0.68	0.8	0.54	j	ı	0.54	0.54	0.54
	Dept	Z= ]		1	1	1	,			ı	1	ţ	1	1			1	-		'	1			1	1		2	ľ			'	'	1
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ο <sup>'</sup>		.310					1, 496	,			0.275	0.275	0.275	0.275		}	0.0	0.0	0.136	0.275	0.544	ı		1.000	1. 088			1, 22,	1	1	2.31	1. 76	1.490
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	CE																				[												
	••	.510m				6.664	6.936	,		4 -	1.632	4.216	2.584	4.760	1	1	0.952					j		4.896	6.392	7.344	- 1	- 1	ı	ı			4.896
	Depth	2 = 2		-	í	!	Ļ			۱ ا	1	1	•	1			ı.	ı	1	1	'			1	1	1	'				1	- 1	1
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	essure He	Pressure Head 10cm Depth: 30cm Depth: 60cm Precipitation Irrigation	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Pressure Head Precipitation Irrigation Evaporation	Depth: 10cm         Pressure Head         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         mm/day         mm/day         mm/day           - 6.936         - 2.700         - 0.544         0.0         0.0	Depth: 10cm         Pressure Head         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         mm/day         mm/day         mm/day           -6.936         -2.700         -0.544         0.0         0.0           - 6.392         -2.176         -0.544         0.0	Depth: 10cm         Pressure Head         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         mm/day         mm/day         mm/day           -6.936         -2.700         -0.544         0.0         mm/day           -6.392         -2.176         -0.544         0.0           -6.664         -2.176         -0.544         0.0	Depth: 10cm         Pressure Head         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         mm/day         mm/day         mm/day           -6.936         -2.700         -0.544         0.0         mm/day         mm/day           -6.936         -2.176         -0.544         0.0         -0.544         0.0           -6.936         -1.496         -0.544         0.0         -0.544         0.0	Depth : 10cm         Pressure Head         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           -6.936         -2.700         -0.544         0.0         mm/day           -6.936         -2.176         -0.544         0.0         mm/day           -6.936         -2.176         -0.544         0.0         0.0           -6.664         -2.176         -0.544         0.0         0.0           -6.936         -1.496         -0.544         0.0         0.0	Depth : 10cm         Depth : 60cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.936         - 2.700         - 0.544         0.0         mm/day           - 6.832         - 2.176         - 0.544         0.0         mm/day           - 6.836         - 2.176         - 0.544         0.0         - 0.85           - 6.936         - 1.496         - 0.544         0.0         - 0.654	Pressure       Head       Precipitation       Irrigation       Evaporation         Depth: 10cm       Depth: 30cm       Precipitation       Irrigation       Evaporation         z= 1.510m       z= 1.310m       z= 1.010m       mm/day       Muno         - 6.396       - 2.700       - 0.544       0.0       mm/day         - 6.392       - 2.176       - 0.544       0.0       mm/day         - 6.396       - 1.496       - 0.544       0.0	Pressure Head         Precipitation         Irrigation         Evaporation           Depth: 10cm         Depth: 30cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.936         - 2.700         - 0.544         0.0         mm/day           - 6.892         - 2.176         - 0.544         0.0         0           - 6.836         - 1.496         - 0.544         0.0         0           - 6.936         - 1.496         - 0.544         0.0	Depth: 10cm         Depth: 30cm         Depth: 60cm         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         mm/day         Muno           -6.936         -2.776         -0.544         0.0         mm/day           -6.936         -2.176         -0.544         0.0         mm/day           -6.936         -1.496         -0.544         0.0         mm/day           -6.936         -1.496         -0.544         0.0	Depth: 10cm         Pressure Head         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.936         - 2.700         - 0.544         0.0         mm/day           - 6.392         - 2.176         - 0.544         0.0         mm/day           - 6.392         - 2.176         - 0.544         0.0         0           - 6.64         - 2.176         - 0.544         0.0         0           - 6.936         - 1.496         - 0.544         0.0         0           - 6.936         - 0.217         - 0.544         0.0         0           - 6.936         - 0.277         - 0.544         0.0         0           - 6.936         - 0.272         - 0.544         0.0         0           6.936         - 0.272         - 0.408         18.1	Pressure Head         Precipitation         Irrigation         Evaporation           Depth: 10cm         Depth: 30cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.356         - 2.700         - 0.544         0.0         mm/day           - 6.392         - 2.176         - 0.544         0.0         mm/day           - 6.392         - 2.176         - 0.544         0.0         0           - 6.392         - 2.176         - 0.544         0.0         0           - 6.396         - 1.496         - 0.544         0.0         0           - 6.936         - 1.496         - 0.544         0.0         0           - 6.936         - 1.496         - 0.544         0.0         0           - 6.936         - 1.496         - 0.408         2.2	Pressure Head         Precipitation         Irrigation         Evaporation           Depth: 10cm         Depth: 30cm         Depth: 60cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.936         - 2.700         - 0.544         0.0         mm/day           - 6.392         - 2.176         - 0.544         0.0         mm/day           - 6.396         - 2.176         - 0.544         0.0         mm/day           - 6.936         - 1.496         - 0.408         18.1         mm/day           - 6.936         - 0.272         - 0.408         0.0         mm/day           - 4.216         - 0.272         - 0.408         0.0         mm/day           - 4.780         - 0.272         - 0.408         9.3         - 0.408	Depth: 10cm         Depth: 30cm         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         un/day         Muo           -6.336         -2.700         -0.544         0.0         mm/day           -6.392         -2.176         -0.544         0.0         mm/day           -6.392         -2.176         -0.544         0.0         mm/day           -6.392         -2.176         -0.544         0.0         0           -6.396         -1.496         -0.544         0.0         0           -6.936         -0.2176         -0.544         0.0         0           -4.564         -0.544         0.0         0         0           -4.564         -0.544         0.0         0         0           -4.564         -0.544         0.0         0         0           -4.564         -0.408         0.0         0         0           -4.216         -0.272         -0.408         0.0         0           -4.216         -0.272         -0.408         0.0         0           -4.760         -0.272         -0.408         0.0         0	Pressure Head         Precipitation         Irrigation         Evaporation           2=1.510m         2=1.010m         mm/day         Muno           -6.936         -2.700         -0.544         0.0         mm/day           -6.392         -2.176         -0.544         0.0         mm/day           -6.396         -2.176         -0.544         0.0         mm/day           -6.396         -2.176         -0.544         0.0         mm/day           -6.396         -2.176         -0.544         0.0         mm/day           -6.936         -1.486         -0.544         0.0         0.0         0.0           -6.936         -1.486         -0.544         0.0         0.0         0.0         0.0           -6.936         -1.486         -0.544         0.0         0.0         0.0         0.0           -6.936         -1.486         -0.544         0.0         0.0         0.0         0.0           -6.936         -1.486         -0.408         2.2         0.0         0.0         0.0           -6.946         -0.272         -0.408         0.0         0.0         0.0         0.0           -7.584         -0.272         -0.408	Pressure Head         Precipitation         Irrigation         Evaporation           Depth: 10cm         Depth: 30cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.010m         am/day         Muno           -6.936         -2.700         -0.544         0.0         mm/day           -6.936         -2.176         -0.544         0.0         mm/day           -6.936         -1.496         -0.544         0.0         mm/day           -6.936         -0.272         -0.408         2.2	Pressure Head         Precipitation         Irrigation         Evaporation           Depth: 10cm         Depth: 30cm         Depth: 60cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           -6.336         -2.176         -0.544         0.0         mm/day         mm/day           -6.536         -2.176         -0.544         0.0         mm/day         mm/day           -6.536         -2.176         -0.544         0.0         -0.6         -0.6           -6.536         -1.496         -0.544         0.0         -0.6         -0.6           -6.936         -1.496         -0.544         0.0         -0.6         -0.6           -6.936         -0.272         -0.408         18.1         -0.6         -0.6           -4.26         -0.272         -0.408         1.4         -0.6         -0.408	Depth: 10cm         Depth: 30cm         Depth: 60cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day           - 6.886         - 1.496         - 0.544         0.0         0           - 6.886         - 0.272         - 0.544         0.0         0           - 6.886         - 0.272         - 0.408         0.0         0.0           - 1.682         - 0.272         - 0.408         0.3         0.0           - 2.584         - 0.272         - 0.408         0.0         0.0           - 0.556         - 0.00         - 0.272         0.00         0.0           - 0.585         - 0.00         - 0.272         0.00         0.0	Pressure Read         Precipitation         Irrigation         Evaporation           Depth: 10cm         Depth: 30cm         Depth: 60cm         Precipitation         Irrigation         Evaporation           Z= 1.510m         Z= 1.010m         am/day         Muno           - 6.836         - 2.176         - 0.544         0.0         mm/day           - 6.836         - 2.176         - 0.544         0.0         mm/day           - 6.836         - 2.176         - 0.544         0.0         0           - 6.836         - 2.176         - 0.544         0.0         0           - 6.836         - 0.772         - 0.544         0.0         0           - 6.836         - 0.272         - 0.408         18.1	Pressure Read         Pressure Read         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           -6.332         -2.176         -0.544         0.0         mm/day         mm/day           -6.332         -2.176         -0.544         0.0         mm/day         mm/day           -6.335         -2.176         -0.544         0.0         0         mm/day         mm/day           -6.335         -2.176         -0.544         0.0         0	Depth : 10cm         Pressure Head         Precipitation         Trigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         mm/dsy         Muno           z= 1.510m         z= 1.310m         z= 1.010m         mm/dsy         Muno           - 6.386         - 2.770         - 0.644         0.0         mm/dsy           - 6.386         - 2.770         - 0.644         0.0         mm/dsy           - 6.386         - 2.776         - 0.644         0.0         mm/dsy           - 6.386         - 2.776         - 0.644         0.0         mm/dsy           - 6.896         - 2.776         - 0.644         0.0         mm/dsy           - 6.896         - 2.776         - 0.644         0.0         mm/dsy           - 6.896         - 1.486         - 0.644         0.0         0           - 6.986         - 0.772         - 0.408         0.0         0           - 1.652         - 0.772         - 0.408         0.0         0           - 2.54         - 0.272         - 0.408         0.0         0           - 0.54         - 0.05         - 0.408         0.0         0           - 0.76         - 0.772         - 0.408	Pressure Head         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.010m         mm/day         Muno           z=1.510m         z=1.010m         mm/day         Muno           z=1.510m         z=1.010m         mm/day         Muno           -6.836         -2.700         -0.544         0.0         mm/day           -6.836         -2.176         -0.544         0.0         mm/day           -6.836         -1.496         -0.544         0.0         mm/day         mm/day           -6.836         -0.272         -0.408         9.0         mm/day         mm/day           -1.627         -0.272         -0.408         9.0         mm/day         mm/day           -2.54         -0.272         -0.408         9.0         mm/day         mm/day           -2.54         -0.272         -0.408         0.0	Pressure Head         Precipitation         Irrigation         Evaporation           z= 1.510m         2= 1.310m         z= 1.010m         mm/day         Muno           z= 1.510m         z= 1.310m         z= 1.010m         mm/day         Muno           - 6.836         - 2.700         - 0.544         0.0         mm/day         Muno/day           - 6.836         - 2.700         - 0.544         0.0         mm/day         mm/day           - 6.836         - 2.776         - 0.544         0.0         0         0           - 6.836         - 1.496         - 0.544         0.0         0         0           - 6.836         - 1.496         - 0.544         0.0         0         0         0           - 6.836         - 0.272         - 0.408         1.81         - 0.0         0         0         0         0         0           - 6.836         - 0.272         - 0.408         1.4         0.0         - 0.272         - 0.408         1.4         0.0         - 0.272         - 0.408         0.0         - 0.272         - 0.408         0.0         - 0.272         - 0.408         0.0         - 0.272         - 0.408         0.0         - 0.272         - 0.408         0.0	Pressure Read  Depth: 30cm Depth: 60cm Precipitation Irrigation Evaporation  z=1.510m 2=1.310m z=1.010m mm/day mm/day mm/day  = 6.836 -2.700 -0.5544 0.00  = 6.836 -2.176 -0.544 0.00  = 6.836 -2.176 -0.544 0.00  = 6.836 -0.272 -0.408 2.2  = 6.836 -0.272 -0.408 0.00  = 7.516 -0.272 -0.408 0.00  = 1.520 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 2.584 -0.272 -0.408 0.00  = 3.672 -0.272 -0.408 0.00  = 4.760 -0.272 -0.408 0.00  = 4.760 -0.272 -0.408 0.00  = 5.168 -0.544 -0.544 0.00  = 4.896 -1.000 -0.544 0.00  = 4.896 -1.000 -0.544 0.00  = 4.896 -1.000 -0.544 0.00  = 4.896 -1.486 -0.580 0.00	Pressure Read         Precipitation         Irrigation         Evaporation           z=1.510m         z=1.310m         z=1.010m         mm/day         Muno           z=1.510m         z=1.010m         mm/day         mm/day         mm/day           x=1.510m         z=1.010m         mm/day         mm/day         mm/day           x=1.510m         z=1.010m         mm/day         mm/day         mm/day           x=1.510m         -0.544         0.0         mm/day         mm/day           x=0.32         -2.176         -0.544         0.0         mm/day           x=0.32         -2.176         -0.544         0.0         0.0           x=0.664         -2.176         -0.544         0.0         0.0           x=0.695         -0.272         -0.408         0.0         0.0           x=0.696         -0.272         -0.408         0.0         0.0           x=0.696         -0.272         -0.408         0.0         0.0           x=0.606         -0.006         -0.272         -0.408         0.0           x=0.616         -0.272         -0.408         0.0         0.0           x=0.616         -0.272         -0.408         0.0 <tr< td=""><td>Pressure Head         Pepth : 10cm         Depth : 60cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         am/day         Muno           -6.836         -2.700         -0.544         0.0         am/day         am/day           -6.836         -2.716         -0.544         0.85         am/day         am/day           -6.836         -2.716         -0.544         0.85         am/day         am/day           -6.836         -2.716         -0.544         0.85         am/day         am/day           -6.836         -2.176         -0.544         0.85         am/day         am/day           -6.836         -1.486         -0.544         0.85         am/day         am/day           -6.836         -1.486         -0.544         0.85         am/day         am/day           -6.836         -0.272         -0.488         2.2         am/day         am/day           -6.836         -0.272         -0.488         1.4         am/day         am/day           -1.637         -0.488         0.0         am/day         am/day         am/day           -1.638         -0.272         -0.488         a</td><td>Pressure Head         Depth: 50cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         am/dsy         kuno           z= 1.510m         z= 1.010m         am/dsy         kuno           - 6.936         - 2.100         - 0.544         0.0           - 6.936         - 2.100         - 0.544         0.0           - 6.936         - 2.106         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 0.272         - 0.488         0.0           - 1.632         - 0.272         - 0.408         0.0           - 1.632         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0</td><td>Pressure Head         Precipitation         Irrigation         Evaporation           Z=1.510m         z=1.310m         z=1.010m         mm/day         Muno           z=1.510m         z=1.310m         z=1.010m         mm/day         Muno           = 6.956         - 2.710         - 0.544         0.0         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         0         mm/day         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         0</td><td>Pressure Head         Precipitation         Irrigation         Evaporation           Z= 1.510m         z= 1.310m         z= 1.010m         am/day         Muno           z= 1.510m         z= 1.310m         z= 1.010m         am/day         Muno           - 6.32         - 2.176         - 0.544         0.0         ma/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         mm/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         mm/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         0.0         mm/day           - 6.32         - 2.176         - 0.544         0.0         0.0         mm/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         <t< td=""><td>Depth: 10cm         Pressure Read         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.00m         am/day         Muno         mm/day         Muno           z= 1.510m         z= 1.00m         am/day         Muno         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         0.0         0.0           - 6.386         - 1.486         - 0.544         0.0         0.0         0.0           - 6.386         - 0.272         - 0.408         0.2         0.0         0.0           - 1.266         - 0.272         - 0.408         0.2         0.0         0.0           - 1.266         - 0.272         - 0.408         0.0         0.0         0.0           - 2.364         - 0.272         - 0.408         0.0         0.0         0.0           - 2.366         - 0.00         - 0.272         - 0.408         0.0         0.0           - 2.366         - 0.01         - 0.272         - 0.408         0.0<!--</td--></td></t<></td></tr<>	Pressure Head         Pepth : 10cm         Depth : 60cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         am/day         Muno           -6.836         -2.700         -0.544         0.0         am/day         am/day           -6.836         -2.716         -0.544         0.85         am/day         am/day           -6.836         -2.716         -0.544         0.85         am/day         am/day           -6.836         -2.716         -0.544         0.85         am/day         am/day           -6.836         -2.176         -0.544         0.85         am/day         am/day           -6.836         -1.486         -0.544         0.85         am/day         am/day           -6.836         -1.486         -0.544         0.85         am/day         am/day           -6.836         -0.272         -0.488         2.2         am/day         am/day           -6.836         -0.272         -0.488         1.4         am/day         am/day           -1.637         -0.488         0.0         am/day         am/day         am/day           -1.638         -0.272         -0.488         a	Pressure Head         Depth: 50cm         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.310m         z= 1.010m         am/dsy         kuno           z= 1.510m         z= 1.010m         am/dsy         kuno           - 6.936         - 2.100         - 0.544         0.0           - 6.936         - 2.100         - 0.544         0.0           - 6.936         - 2.106         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 2.16         - 0.544         0.0           - 6.936         - 0.272         - 0.488         0.0           - 1.632         - 0.272         - 0.408         0.0           - 1.632         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0           - 2.16         - 0.272         - 0.408         0.0	Pressure Head         Precipitation         Irrigation         Evaporation           Z=1.510m         z=1.310m         z=1.010m         mm/day         Muno           z=1.510m         z=1.310m         z=1.010m         mm/day         Muno           = 6.956         - 2.710         - 0.544         0.0         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         0         mm/day         mm/day         mm/day           - 6.956         - 2.716         - 0.544         0.0         0	Pressure Head         Precipitation         Irrigation         Evaporation           Z= 1.510m         z= 1.310m         z= 1.010m         am/day         Muno           z= 1.510m         z= 1.310m         z= 1.010m         am/day         Muno           - 6.32         - 2.176         - 0.544         0.0         ma/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         mm/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         mm/day         mm/day           - 6.32         - 2.176         - 0.544         0.0         0.0         mm/day           - 6.32         - 2.176         - 0.544         0.0         0.0         mm/day         mm/day           - 6.32         - 2.176         - 0.544         0.0 <t< td=""><td>Depth: 10cm         Pressure Read         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.00m         am/day         Muno         mm/day         Muno           z= 1.510m         z= 1.00m         am/day         Muno         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         0.0         0.0           - 6.386         - 1.486         - 0.544         0.0         0.0         0.0           - 6.386         - 0.272         - 0.408         0.2         0.0         0.0           - 1.266         - 0.272         - 0.408         0.2         0.0         0.0           - 1.266         - 0.272         - 0.408         0.0         0.0         0.0           - 2.364         - 0.272         - 0.408         0.0         0.0         0.0           - 2.366         - 0.00         - 0.272         - 0.408         0.0         0.0           - 2.366         - 0.01         - 0.272         - 0.408         0.0<!--</td--></td></t<>	Depth: 10cm         Pressure Read         Precipitation         Irrigation         Evaporation           z= 1.510m         z= 1.00m         am/day         Muno         mm/day         Muno           z= 1.510m         z= 1.00m         am/day         Muno         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         mm/day         Muno           - 6.386         - 2.176         - 0.544         0.0         0.0         0.0           - 6.386         - 1.486         - 0.544         0.0         0.0         0.0           - 6.386         - 0.272         - 0.408         0.2         0.0         0.0           - 1.266         - 0.272         - 0.408         0.2         0.0         0.0           - 1.266         - 0.272         - 0.408         0.0         0.0         0.0           - 2.364         - 0.272         - 0.408         0.0         0.0         0.0           - 2.366         - 0.00         - 0.272         - 0.408         0.0         0.0           - 2.366         - 0.01         - 0.272         - 0.408         0.0 </td

Table 3-81

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the Ul plot

Ground Surface Level : z=1,460m

Khok Nai Leaching Test Plot, July '93

	Remarks																																	
	· .			<u></u>																														
	Evaporation	oung	mm/day																															
	Irrigation	mm/day																																
-	Precipitation	mm/day		2.5	7.5	1	1	0.0	6.0	0.0	11.0	8.3	1		8 0	0.8	0.0	0.0	3.3		1	0.0	0.0	13.9	3, 6	0.0	1	1	114.8	0.0	0.0	0.0	0.0	-
	Depth : 60cm	z= 1.010m		- 0.544	0.680		I	- 0.680	- 0.680	- 0.680		- 0.544		1	- 0.544	- 0.544	- 0.680	- 0.680	- 0.680	1	1	- 0.544	- 0.544	- 0.544	- 0.408	- 0.408	1	1	- 0.408	- 0.408		- 0.272	- 0.272	
ressure Head	Depth : 30cm	z= 1.310m		- 1.768	- 1.768	1	1	- 2, 584	- 2, 040	- 1.904	1	- 0.952			- 1.360	- 1.632	- 2.312	- 2.584	- 3.672		•	- 2.856	0.0	- 1.496	- 0.680	- 0.816	1		0.0	- 0.136			-0.136	
В	Depth : 10cm	z= 1.510m		- 5.304	- 5.168	_	1	- 6.256	- 4,896	- 4.352		- 1.360		l r l	- 7.480	- 6.528	- 6,392	- 7.208	- 5.440	-		- 5.712	- 6.256	- 6.120	- 3, 536	- 5.440	, made		- 5,848	- 4.488			- 5, 440	
	Date		·	1	2	3	4	5	8.	7	∞	တ	10	1.1	1.2	13	1.4	15	16											2.7				•

Table 3-82

Tensioneter Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location B at the Portion B of the U1 plot

:
93
August
-
Plot
Test
Leaching
Naı
Khok

Khok Nai L	Khok Nai Leaching Test Plot	August 93			-	Ground Surface Level : z=1.460m	el : z=1.460m
	A.	ressure Head					
Date	Depth : 10cm	Depth: 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
-	z = 1.510m	z= 1.310m	z= 1.010m	mm/day	nm/day	Muno	
		·				mm/day	
7			_				
2	- 7.072		- 0.272	0.0			
3	- 4.216	- 0,136	-0.272	18.8			
7	- 3, 128		-0.272	5,3			
ស	- 4.216	- 0.136	- 0.272	0.0			
9	- 3.944	- 0.272	- 0,408	5.9			
7			1	1			
8	. –	1	-				
6	- 4.352	- 1.088	- 0.816	0.5			
1.0	- 5, 7.12	- 1.360	- 0.816	2.3			
1.1	- 5.984	- 1.632	- 0.816	0.0			
1.2	- 6.392	- 1.904	- 0.952	0.0			
13	- 6.936	- 2.04	- 0.952	0.0			
14	-	<b>J</b>					
15			1				
16	- 5.304	- 1.632	- 0.952	0.0			
1 7	- 6, 936	0.0	- 0,816	0.0			
1 8	- 6, 664	- 4.08	- 0.952	1.8			
1 9	- 6.392	- 4.216	-0.816	0.5			
2 0		- 3.234	- 0.952	11.0			
2 1		,		-			
2 2		1					
2 3	- 2.992	- 2.04	0.680	3, 2			:
24	- 3.808	- 1.632	0.680	0.0			
2 5	- 5,304	- 1.904	- 0,680	0:0			
26	- 6.120	- 1.088	- 0.680	0.8			
2.7	- 6, 256	- 2.584	0.680	5.5			
2 8	1	-					
2 9	-	1	****				
30	- 4.624	- 0.680	- 0.408	0.0			
3 1	- 5.984	- 0.136	- 0.272	2.3			

Table 3-83

Tensioneter Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the Ul plot

vel : z=1.460m		Remarks																																	
Ground Surface Level : z=1,460m		Evaporation	Muno	mm/day		3.3	3.9	3.1	6.0	1.0	1.0	2.1	4.9	2.0	3.7	0.6	0.3	3.2	3.8	1.5	0.2	2.5	1.8	1.6	2.1	2.9	0.2	1.4	3.1	2.4	3. 4	3.8	3.6	3.5	
		Irrigation	mm/day																			-													
		Precipitation	mm/day		-	1	1	19.0	13.2	35. 1	20.4	0	29.0	15.4	3.7	96. 5	22.0	0		0	. 0	1	16.4	0	0			6.5		ì		-			
		Depth : 60cm	z= 1.010m	:	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	- 0.136	ı	0.00	0.00	0.00	1	_	0.00	J	-				-	
November '92	essure Head	Depth: 30cm	z= 1.310m		0.00	0.00	0.00	- 0.408	0.00	00.00	0.00	0.00	- 0.272	0.00	00.00	0.00	0.00	0.00	1	0.00	0.00	i	0.00	0.00	0, 00		-	0.00	1	-	-			-	
Khok Nai Leaching Test Plot , November '92	Pr	Depth : 10cm	z= 1.510m		- 2.72	- 1.02	0.00	- 0, 408	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1	0.00	0.00	ı	0.00	0.00	0.00			0.00	•	1	_	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1	
Khok Nai Le		Date	<u> </u>		1	2	က	4	ເດ	9	£-	8	6	10	77	12	13	1.4	15	1.6	1.7	18	1 9	2.0	2 1	2 2	2 3	2.4	2.5	2 6	2.7	8 7	2 9	O က	3.1

Table 3-84

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the U1 plot

Khok Nai	Khok Nai Leaching Test Plot , December	Vecember 32					
	ш.	Pressure Head					
Date	Depth: 10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	z= 1.510m	z= 1.310m	z= 1.010m	nm/day	mm/day	Muno	
						mm/day	
r-1						2.3	
2	- 0.408	- 0.272	0.00	3.2		2.4	
က	1		1			2.4	
4	ı	-				1.2	
ഗ	1	1	1	ı		2.8	
9		1	1			2.1	
7	1	-				2.5	
<sub>∞</sub>	0.00	0.00	0.00	9.0		2.5	
თ	00.00	0.00	0.00	8.0		2.5	
0 -1	0.00	0.00	0.00	4.0		0.8	
77	0.00	0.00	0.00	4.5		1.0	
1 2	0.00	0.00	00.00	2.4		3.0	
1 3	0.00	0.00	0.00	0		3.0	
	00.00	0.00	0.00	0		3.9	
1 2	00.00	0.00	0.00	0		4.3	
	00.00	0, 0,	0.00	0		4.6	
	0.00	0.00	0.00	0.8		4.1	
	- 0.272	- 0.272	0.00	0		4.4	
	- 0.544	- 0.408	0.00	0		3.6	
	- 1.088	- 0.544	0.00	0.3		2.2	
	- 1.768	- 0.544	0.00	0		4.4	
	- 0.272	0.00	0.00	7.9		2.2	
	00.00	0.00	0.00	30.0		2.9	
	00.0	0.00	00.00	10.5		1.1	
2 5	0.00	0.00	0.00	7.1		0.1	
	1	1	1	71.5		4.2	
	-	_		2.1		0.7	
	00.00	0.00	0.00	1.0		2.5	
	0.00	0.00	0.00	2.0		3.1	
	00.00	0.00	0.00	9.0		က	-
	- 0.136	0.00	0.00	0		3.7	

3-85 Table

Tensioneter Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the Ul plot

: z=1,460m		Remarks																																
Ground Surface Level : z=1,460m		Evaporation	Muno	mm/day	4.0	6.0	3.5	2.5	1.5	3.9	3.8	5.1	3.6	3.4	4.3	4.0	4.5	2.0	7.0	3.8	4.4	5.4	3.0	5.0	2.0	4.9	3.8	2.7	က	3.03	4.8	4.4	1.1	9 1
		Irrigation	mm/day																															
		Precipitation	mm/day		0.5	0	0	0.6	10.8	0		6.4	0	0	0	0	1,1	3.6	0.3	0	1.2	11.3	9.1	5.8	0	3.8	19.0	0	0	0	0	2.4	19.4	α σ
		Depth : 60cm	z= 1.010m		0.00	0.00	0.00	0.00											:															
January 93	essure Head	Depth : 30cm	z= 1.310m		0, 00	0.00	0.00	0.00																			-							
Khok Nai Leaching Test Plot , January '93	H G	Depth : 10cm	z= 1.510m		00.00	- 0.136	- 0.544	- 0.68																										
Khok Nai L		Date			н	2	က	4	ഹ	တ	2	<b>∞</b>	රි	1.0	11	1.2	1.3	1.4	15	9 1	17	8	1 9	2.0	2.1	2.2	2 3	2.4	2 5	2 6	2.7	2 8	2.9	ر در

Table 3-86

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the U1 plot

Khok Nai I	Khok Nai Leaching Test Plot,	February '93				Ground Surface Level : z=1,460m	evel : z=1.460m
	ል	ressure Head					
Date	Depth : 10cm	Depth : 30cm	Дерти : 60сш	Precipitation	Irrigation	Evaporation	Remarks
	z = 1.510m	z= 1.310m	z= 1.010m	mm/day	mm/day	Muno	
						mm/day	
7	- 2.856	- 0.544	0.00	0		4.0	
2	- 1.632	0.00	0.00	18.1		4.0	
3	0.00	0. 00	0.00	3.6		3.2	
4	0.00	0.00	0.00	0		1.7	
5	- 0, 408	0.00	0.00	0		4,3	
9	1		ı	1		5.5	
1	1		1	1		5.4	-
8	0.00	0.00	0.00	0		5.9	
6	0.00	0, 00	0.00	0		5.6	
10	- 0.272	0.00	00.00	0.2		6.4	
1.1	- 1.088	- 0.408	0.00	1.1		4.7	
1.2	- 2,448	- 0.544	0.00	0.1		4.7	
13	-	•	1	1		4.6	
1.4	_		1	ŀ		4.3	
15	- 7.616	- 1.088	0.00	0		6.0	
1.6	- 7.888	- 1.36	0.00	0		4.6	
1 7	• • •		0.00	0		5.0	
	7. 888	- 2.04	0, 00	0		5.4	
	- 7.616	- 2.176	0.00	0		6.0	
	l	•	1	i		4.9	
		1	:1	-		4.5	
	- 7.888	- 2.176	0.00	0		4.7	
	- 7,888	- 2. 448	0,00	0		4.8	
	- 7.888	- 2.448	0.00	0		7.2	
	- 7.752	- 2,312	0.00	3, 1		5,0	
	- 7.888	- 2.176	0.00	0		3.0	
	1			_		3.5	
	1	-	ľ			5, 1	
2 9							

Table 3-87

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the Ul plot

Ground Surface Level : z=1.460m

.93
, March
Test Plot
Leaching
Khok Nai

	Remarks																																	
	Evaporation	Muno	mm/day																															
	Irrigation	am/day															1																	
	Precipitation	nn/day		0.0	9.0	0.0	0.0	0.0	1	1	7.3	0.6	0.6	1.5	5.2		ŀ	2.1	36.4	0.0	7.8	3, 9	ļ	!	0	5.2	0	0	0	-	_	0	0	0
		z= 1.010m		. 0	0	0	0	0	-	1	0	0	0	0	0	1	-	0	0	0	0	0	-		0	0	. 0	0	0			0	0	0
ressure Head	Depth: 30cm	z = 1.310m	1	- 1.632	H	- 1.360	- 2.040	- 2.312	ŀ	ı	- 0.952	- 0.952	Ţ.	- 1.632	- 1.224		-	- 0.204	0	0	- 0.272	0	-		0	0	0	0	0		1	0	0	0
Р	Depth : 10cm	z= 1.510m		- 7.072	7	- 7.888	- 7.888	- 7.888	_	1		- 5.168		- 7.888		_	_	0	0	- 1.496	- 1, 768	-2.312	****		0	0	0	0	0	_		0	0	0
<b>-</b>	Date			<b>,</b> —(	2	င	4	വ	9	L	∞	თ	1.0	1.1	1.2	1 3	14	15		17	7 8	1.9	2 0	2 1	2.2	2 3	2.4	2 5	26	2.7	2 8	2 9	3.0	31

Table 3-88

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the U1 plot

Ground Surface Level : z=1.450m

Khok Nai Leaching Test Plot , April '93

mm/day Muno mm/day mm/day mm/day

Table 3-89

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the Ul plot

	>	
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	)	

10cm Depth:					
z = 1, 3, 2 = 1, 3, 3 = 1, 3, 4, 4, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5, 5,					
		Precipitation	Irrigation	Evaporation	Remarks
2088 2088 204 204 2088 204 2088 204 2088 2088 2088 2088 2088 2088 2088 2088 2088 2088 2088 2098	z≖ 1. Ulum	mm/day	nn/day	Muno	
2888 2888 2888 2888 2888 2888 2888 2888 2888 299 200 200 200 200 200 200 200				nn/day	
2888					
2888	1				
2888 2888 2888 124 15. 124 16. 16. 17. 18. 18. 18. 19. 19. 19. 19. 19. 19. 19. 19	- 0.272	0.0			
2888 124 124 124 13888 1496 1496 150 160 170 170 170 170 170 170 170 17	- 0.272	0.0			
2888 224 224 2888 2888 2524 7 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7. 7.	- 0, 408	0.0			
224 - 7. 228 288 288 288 524 - 7. 524 - 7. 60 60 60 60 60 60 60 60 60 60	- 0.408	0.0			
224 - 7. 288 288 288 524 - 7. 576 - 7. 750 - 7. 7	- 0.408	0.0			
224 288 288 288 204 1 7. 1 8. 1 9. 1 1. 208 1 1. 208 208 208 208 208 208 208 208		1			
2888 2888 2888 524 60 60 60 60 60 60 60 60 60 60		1			
2888 524 524 760 760 760 760 760 770 770 770	- 0.408	0.0			
2888 524 576 60 60 60 60 60 60 60 60 60 6	- 0.408	0.0			
224 576 160 180 180 180 180 180 180 180 190 190 190 190 190 190 190 190 190 19	- 0.136	0.0			
776 760 780 780 780 720 720 720 720 720 720 720 72	0	0.0			
760 496 952 0 720 0 720 0 0 0 0 0 0 0 0 0 120 0 0 0 0 120 0 0 0	0				
760 - 3. 496 0 952 0 720 0	ţ				
760 - 3. 750 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1				
360 496 0 720 720 720 720 720 720 720 720 720 7	0	1.6			
200 200 208 	0	45.4			
720 720 0 720 808 616 - 1 1344 - 1 1616 - 1	0	4.7			
720 208 344 616 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	0	4.3			
208 344 616 888	0	0.0			
208 344 616 1 1 1 888	-				
208 344 616 888		,			
344 - 1. 616 - 1. 888 - 1.	0	0.0			
888 - 1.	0	0.0			
888	0	0.0			
	0	0 0			
7.888	0	0.1			
	-				
7.480 - 2.584	0	0.0			

Table 3-90

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the U1 plot

Khok Nai	Khok Nai Leaching Test Plot,	June '93			<b>.</b>	Ground Surface Level : z=1.460m	: z=1.460m
	đ	ressure Head					
Date	Depth: 10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	z= 1.510m	z = 1.310m	z= 1.010m	nm/day	mm/day	oung	
						mm/day	
<b>.</b> -1	- 7.888	- 2,448	0.0	0.0			
2	- 7.752		0.0	0.0			
က	- 7.752	- 1.904	0.0	0.85			
4	- 7.616	- 1.369	0.0	0.0			
വ		1		1			
9	_	ſ	1	_			
7	- 5.168	0.0	0.0	2.2			
∞	- 1.224	0.0	0.0	18.1			
6	1.904	0.0	0.0	0.0			
1 0	- 0.544	0.0	0.0	9.3			
1.1	- 1.224	0.0	0.0	1. 4	•		
1.2				•			
೮	-	_	_				
1 4	0.0	0.0	0.0	14.5			
15	0.0	0.0	0,0	0.1			
1 6	0.0	0.0	0.0	0.0			
1.7	- 0.272	0.0	0.0	0.0			
ıı	- 1.496	- 0.272	0.0	0.0			
			J				
	- 3.264	- 0.680	0.0	0.0			
	- 5.032	- 0.952	0.0	0.0			
	- 6.664	- 1.496	0.0	0.0			
	- 6.800	- 1, 768	0.0	0.0			
	- 4.896	- 0.952	0.0	0.5			
2 6	1	1	1	13.9			
	1	1					
	٠.!	- 1. 496	0.0	J			
	- 5.100	- 1.088	0.0	3,4			
3 0	- 4.896	- 1.088	0.0	5.0			
				2.1			

Table 3-91

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

. Location C at the Portion C of the Ul plot

Khok Nai	Leaching Test Plot , July	uly 193				Ground Surface Level	: z=1,460m
	Pr	essure Head	:				
Date	Depth: 10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	z= 1.510m	z = 1.310m	z= 1.010m	mm/day	mm/day	Kuno	
						mm/day	
<b>1</b>	- 5.848	- 1.360	0.0	2.5			
2	- 4.488	- 1.224	0.0	7.5			
က	-						
4	-						
5	- 7.888	- 2, 584	0.0	0.0			
9	- 6.392	- 1,360	0.0	9.0			
_	- 4. 488	- 1.360	0.0	0.0			
∞		1	_	11.0			
- 1	- 3.400	- 0.544	0.0	8.3			
0		-					
	-	_	-				
	- 7,888	- 1.768	0.0	0.8			
ന	- 7,344	- 1.632	0.0	0 8			
1.4	- 6, 664	- 1.496	0.0	0.0			
L D	- 6.664	- 1.632	0.0	0.0			1
	- 5.440	- 1.360	0.0	3.3			
	J	ı	ļ	ļ			
	1	-	-				
1 6	- 6,256	- 1.768	0.0	0.0			
	- 6.256	- 1.632	0.0	0.0			
	4	- 0.544	0.0	13.9			
	-  -	0.0	0.0	3.6			
	4,896	0.0	0.0	0.0			
			1	1			
		1	-	I			
	- 1.496	0.0	0.0	114.8			
	- 1	0, 0	0.0	0.0			
- 1	- 2.312	0.0	0.0	0.0			
2 9	- 1.768	0.0	0.0	0.0			
	- 1.360	0.0	0.0	0.0			
3 1		-		1			

Table 3-92

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location C at the Portion C of the U1 plot

.93

Khok Nai Leaching Test Plot , August

Ground Surface Level : z=1.460m Remarks Evaporation mm/day Muno Irrigation mm/day Precipitation mm/day ري د 3.2 0 0 0 0.0 000 0.0 0.0 5003 1 ĺ 1 1 1 Depth : 60cm z= 1.010m - 0.136 - 0.544 -0.272 $\frac{-0.272}{-0.272}$ -0.13600 0.0 0.0 0.0 ŀ ļ -Head Depth : 30cm -1.360 -1.224 -1.632- 3, 128 - 3, 400 - 3.808 - 3.808 - 3.264 - 1.496 - 1.496 z = 1.310m-0.5440.00 - 0 810 0.0 i ŀ i 1 ١ Pressure Depth: 10cm - 3, 128 - 3, 808 - 3, 264 - 3, 264 - 3, 944 - 0.680 - 0.408 - 0.136 - 0.680 - 0.272 - 7.480 - 7.752 - 7.208 - 6.528 - 3, 536 - 2, 040 - 5, 576 - 4, 760  $\frac{-2.312}{-2.176}$ z=1.510m- 7.888 1 ı н ı į I) Date 4696 1 B 2 2 3 3

3-93 Table

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the Ul plot

Date Depth: 10cm Depth 2 2 2 3 4 4 5 5 0 m	sure Head epth: 30cm z= 1,310m	Depth : 60cm z= 1,010m	Precipitation   mm/day   0   0   0   0   0   0   0   0   0	Irrigation mm/day 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Evaporation Muno mm/day 4.0 4.0 4.0 4.0 4.0 4.0 7.2 7.2 7.2 7.2 5.5 5.5 5.6	Remarks
4		Depth : 60cm z= 1,010m	Precipitation mm/day 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Irrigation mm/day 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Evaporation Muno mm/day 4.0 4.0 3.2 1.7 1.7 4.3 5.5 5.4	Remarks
	1,310ш	z= 1,010m	mm/day 0 0 0 0 0 0 0 0 0 0 0 1.1	mm/day 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Muno mm/day 4.0 4.0 3.2 3.2 1.7 1.7 5.6 5.9	
			18.1 0.0 0 0.2 0.2	0000000000	пп/day 4.0 4.0 3.2 1.7 4.3 5.6 5.9	
			0 3.6 0 0 0 0 0 0 0,2 1.1	96999999	0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
			18.1 3.6 0 0 0 0 0,2 1.1	00000000	0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
			3.6 0 0 0 0 0,2 1,1	0000000	လ် <u>ငှဲ နယ် ကို လို</u> လ လ ၁၈ နာ က	
			0 0 0 0 0 0,2 1,1	000000	1. 4. m.	
			0 0 0,2 1,1	000000	4. സ്.സ്.സ്. ധസ 4. യര	
			0 0 0 0.2	00000	വ പ്രവ	
			0 0 0 0 2 1 1 1 1	00000		
			0 0 0.2 1.1	0000	တ တ	
			0.2	000	5.6	
			0.2	00		
			1,1	0	6.4	
					4.7	
			0.1	0	4.7	
			1	0	4.6	
			1	. 0	4.3	
			0	0	6.0	
			0	0	4.6	
			0	0	5.0	
			0	0	5.4	
		,	0	0	6.0	
			1	0	4.9	
- 10			-	0	4.5	
t		- 0.408	0	0	4.7	
	⊣	- 0.544	0	2.1	4.8	
۱	ŀ	- 0.544	0	0	7.2	
- 8.024	∹∣	- 0.408	3.1	0	5.0	
- 7.072	ᆌ	- 0.408	0	0	3.9	
-		1	1	0	3.5	
-	1	_		0	5.1	

Table 3-94

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the UI plot

					Γ-	7	Ţ-	<u> </u>	Г	Γ	Γ	Τ	Τ	7	Γ	7	T	1	Γ	T	T	Ė	$\Gamma$	T	1	Γ	Γ	Τ-	Т	Τ	1	Ι.	<u> </u>	Τ-	
vel: z=1.460m		Remarks																																	
Ground Surface Level :		Evaporation	Muno	mm/day																															
		Irrigation	mm/day																														, and the state of		
		Precipitation	mm/day		0.0	0.6	0.0	0.0	0.0	_	1	7.3	0.6	0.6	1.5	5.2	J		2.1	36.4	0.0	7.8	3.9	1	1	0	5.2	0	0	0	Ĺ		0	0	0
		Depth : 60cm	z= 1,010m		- 0.272	- 0.272	- 0.272	- 0.272	- 0.408	_	****	- 0.544	- 0.408	- 0.408	- 0.408	- 0.544	1	J	- 0.408	- 0.272	- 0.408	- 0.408	-0.272		1	0	0	0	0	0	1		- 0.136	- 0.136	- 0,136
March 93	ressure Head	Depth : 30cm	z= 1,310m		- 0.272	- 0.272	0	- 0.272	- 0.408	-		- 0.408	- 0.408	- 0.544	- 0.680	- 0.544	1		- 0.272	0	- 0.136	- 0.272	0	1		0	0	0	0	0	1		0	Φ,	n
Khok Nai Leaching Test Plot , March '93	d.	Depth : 10cm	z= 1,510m		- 7.072	- 5, 712	- 5,984	- 6.664	- 6.664		ł	- 2.448	- 3.400	- 4,624	- 5.984	- 4.760			- 0.408	0	- 0,952	- 1.224	- 1.360		1	- 0.272	- 0.136	- 0, 136	-0.272	- 0.272	1		- 0.408	- 0, 408	- 0.408
Khok Nai I		Date			d	2	က	4	ഥ	တ		ω	6	0	11	1.2	13	14	វេ	1.6	1.7													0,0	

Table 3-95

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the Ul plot

89	
April	
t Plot ,	
eaching Test	
Nai Leach	
Khok N	

<b>P</b> .	ressure Head			:		
10cm	Depth : 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	z= 1,310m	z= 1,010m	mm/day	mm/day	oung	
					mm/day	
544	0.0	- 0.272	0.0			
816	0,0	- 0.272	0.0			
	-	1				
	1	1	1		-	
		- 0.272	0.0			-
~	- 0.136	- 0.272	0.0			
	- 0.136	- 0.408	0.0			
360	- 0.136	- 0.408	0.0			
496	- 0.272	- 0.408	0.0			
		1				
		1				
952	- 0.136	- 0.408	0.0		-	
544	- 0, 136	- 0.272	3.5			
	0 0	- 0.272	28. 7			
136	0.0	- 0.272	0.0			
		- 0.136	17.2			
		1	]			
	-					
44	0.0	- 0.136	0.0			
52	- 0.136	- 0, 408	0.0			
496	- 0.136	- 0.408	0.0			
176	- 0.408	- 0, 408	0.0			
448	- 0.408	- 0.544	0.0			
	1	1	_			
	-	1	•			
192	- 0.408	- 0.408	0.0			
36	- 0.544	- 0.544	0.0			
672	- 0.544	- 0,408	0.1			
44	- 0.544	- 0.408	0.0			
80	- 0.544	- 0.544	0.0			

Table 3-96

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the Ul plot

				: '	· .			· .					г			Γ			· · · · ·	<del>ب</del> ب	<u></u>		,,	, 	٦			r1	, <sub>1</sub>					<u></u> 1	<del></del> -
: z=1.460m		Renarks																																	
Ground Surface Level :		Evaporation	Muno	mm/day																															
)	:	Irrigation	mm/day	-																															
		Precipitation	mm/day				0.0	0.0	0.0	0.0	0.0		-	0.0	0.0	0.0	0.0	0.0	<u> </u>		1.6	45.4	4.7	4.3	0.0		-	0.0	0.0	0.0	0,0	0.1	-	•	
		Depth : 60cm	z= 1,010m		1	1	- 0.544	- 0.544	- 0.680	- 0.680	- 0,680	1	1	- 0.680	- 0.544	- 0.544	- 0, 408	- 0.408	1	1.	- 0.272	- 0.272	- 0.272	- 0.272	- 0.272			- 0.408	- 0.408	- 0,408	- 0.408	- 0.408			- 0.408
May 93	ressure Head	Depth: 30cm	z= 1,310m		j		-1.020	- 1.360	- 1,632	- 1, 768	- 2.040	1	1	- 3, 400		- 4.012	- 3,876	- 2,312	1	1	- 0.408	0.0	0.0	0.0	0.0			- 0.272	0.408	- 0.272	- 0.272	- 0.272	1		- 0.408
Khok Nai Leaching Test Plot	a	Depth : 10cm	z = 1,510m		1	1 1	- 5.712	- 6.120	- 6.120	- 7:344	- 7.072	•		- 8.024	- 8, 432	- 8.296	- 8, 568			ı	- 4.964	- 0, 544	- 1.088	- 0.816	- 1.768	1		- 3, 128	- 3.400	- 3,128	- 2,854	- 2,856		-	- 2.992
Khok Nai		Date			1	23	က	7	3	9	2	ω	ග	0 1		1.2	ლ  -	1.4	щ Ю	16		ı		2 0	$\begin{bmatrix} 2 & 1 \end{bmatrix}$					2.6	1 1	2 8	2 9	3.0	3.1

Table 3-97

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the U1 plot

Khok Nai	Khok Nai Leaching Test Plot , June 93	June 93				Ground-Surface Level : z=1.460m	: z=1.460m
	r.	ressure Head					
Date	Depth: 10cm	Depth: 30cm	Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
	z= 1,510m	z= 1,310m	z = 1,010m	nn/day	mm/day	orny	
						mm/day	
1	- 2.856	- 0.272	- 0.408	0.0			
2	- 2.584		- 0.408	0.0			
3	- 2.176	- 0.272	- 0.408	0.85			
4	- 1.904	0.0	- 0.272	0.0			
വ			1				
9	3	1	ı	]			
7	- 1.224	0.0	- 0.136	2.2			
8	- 0.544	0.0	- 0.136	18.1			
	- 0.680	0.0	- 0.136	0.0			
1 0	- 0, 408	0,0		6.3			
	- 0.680	0.0	- 0; 136	1.4			
1.2				1			
1.3		<b>1</b>	1				
14	0.0	0.0	0.0	14.5			
15	0.0	0.0	0.0	0.1			
16	- 0.136	0.0	- 0.136	0.0			
1.7	- 0.544	0.0	- 0.272	0.0			
1 8	- 1.360	- 0.408	- 0.408	0,0			
19			1	2007			
2 0	[	-	ı	1			
2 1	- 1,360	- 0.272	- 0.408	0.0			
2 2	- 1.632	- 0.272	- 0.408	0.0			
2 3	- 3.264	- 0.544	- 0.544	0.0			
2 4	- 1.768	- 0,544	- 0.544	0,5			
2 5	- 1.224	- 0.272	- 0.408	13.9	,		
2 6		aurin .		1			
2.7	1 1	٩.					
2 8	- 1.360		- 0.408	9. <del>4</del>			
2 9	1.088	- 0.272	- 0.408	5.0			
3 0	- 1.224	- 0.272		2.1.			
3.1							

Table 3-98

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the U1 plot

Ground Surface Level : z=1.460m

Khok Nai Leaching Test Plot, July '93

Remarks Evaporation mm/day Muno Irrigation mm/day Precipitation mm/day 00000 0 0 0 114.8 0.0 0.0 0 0 ∞ ∾ 1 4 ì 1 1 ı Ŧ Depth: 60cm - 0.408 - 0.544 - 0.544 - 0.408 - 0.408 - 0.408  $\frac{-0.272}{-0.272}$ 0.136z=1.010m- 0.408 -0.272- 0.544 -0.272-0.272i. i 1 l 1 1 ı ŀ Head Head Depth: 30cm - 1. 088 - 0. 408 - 0.408 - 0.680 - 0.408 - 0.408 - 0.136 -0.272- 0. 408 - 0. 544 - 0.544 -0.408z = 1,310m-0.272-0.408000 0.0 ŀ 1 1 į 1 Pressure Depth: 10cm - 4.216 - 2.856 - 1.088 - 2.176 -0.544 -1.088- 2.176 - 2.720 - 3.264 -1.496-1.496 -3.536- 5.168 - 1.360 - 2.448 z= 1,510m -1.360-2.040- 2, 448 ŧ ŀ ı Ţ 1 ļ 1 I 2 0 0 Date യത 4 10 0 1 4 0 0

0.0

 $\frac{-0.136}{-0.136}$ 

0.0

0.0 - 0.544 - 0.816

ന

0.136

Table 3-99

Tensiometer Head Variation in Relation to Precipitation, Irrigation and Evaporation

Location D at the Portion A of the Ul plot

	ressure Head					٠.
Depth : 10cm		Depth : 60cm	Precipitation	Irrigation	Evaporation	Remarks
z= 1,510m	z= 1,310m	z = 1.010m	mm∕day	пп/day	oun <b>n</b>	
					nm/day	
			1			-
- 0.680	0.0	0.0	0.0			
- 0.408	0.0	0.0	18.8			
- 0.272	0.0	0.0	5, 3			
- 0.680	0.0	- 0.136	0.0			
- 0.680	- 0.135	- 0.272	5, 9			
		1	-			
	L.					
- 2.176	- 0.680	- 0.544	0.5			
- 2.312	- 0.816	- 0.680	2.3			
- 2.040	- 0.816	- 0.680	0.0			
- 1.768	- 0.680	- 0.680	0.0			
- 2.856	- 0.952	- 0.680	0.0			
ı	1	1				
1	1	1				
- 4, 760	- 1.360	- 0.680	0.0			
- 4.080	- 1.360	- 0.680	0.0			
- 4.488	1.496	- 0.680	1.8			
- 3.944	- 0.360	- 0.680	0.5			
- 2.040	- 0.544	- 0.544	11.0			
	_					
	1					
- 1.088	- 0.408	- 0.408	3.2			
- 2.176	- 0.544	- 0.544	0.0			
	- 0.544	- 0.408	0.0			
- 3.400	0.952	- 0.544	0.8			
- 1.632	0.0	- 0.544	ည် သ			
-						
-	-		ı			
- 1.768	0.0	- 0.272	0.0			
- 2,856	0		~			

Table 4-2

Hydraulic Head Variation during the Subsidence Test in Relation to Canal Stage

Location A

Pressure Nead Observed by Tensionerers Total Need obs. by Plezometers Subsidence Remarks 2 = 1.630m	st Plot,	Bacho Swamp Test Plot, 1 December '92				Ground S	Ground Surface Level : z=1,730m	. 730m
Depth: S5cm Depth: 60cm P. NO. 1 P. NO. 2 Canal Stage Subsidence Remarkable 2= 1.480m	Press	ure Head Observed by T	ensiometers	Total Read obs.	òy			
2= 1.480m	10,	Depth :	Depth : 60cm	P. NO. 1	1	Canal Stage	Subsidence	Remarks
0.00     0.00     1.73     1.649     1.70     pumping       0.00     0.00     1.885     1.74     1.67     pumping       0.00     0.00     1.885     1.73     1.64     1.67       0.00     0.00     1.885     1.74     1.67     1.67       0.00     -0.408     1.45     1.85     1.84     1.84       0.00     -0.544     1.247     1.355     0.88     0.98       0.00     -0.544     1.155     1.255     0.98     0.98       0.00     -0.886     1.055     1.05     0.76     0.98       0.00     -0.886     0.995     1.05     0.76     pumping       0.00     -1.02     0.896     0.90     0.81     pumping	1, 630		z= 1.130m	z= 0.730m	z= 0.230m			
0.00 0.00 1.895 1.74 1.67 1.67 1.00 0.00 1.895 1.74 1.67 1.67 1.67 1.67 1.67 1.67 1.67 1.67	0.00	0.00	0.00			1.73		pumping start
0.00 0.00 1.695 1.74 1.67 0.00 0.00 0.00 1.695 1.755 1.64 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	0.00	0.00	0.00	1.73	1.649	1.70		
0.00     0.00     1.895     1.725     1.64       0.00     -0.272     1.65     1.68     1.69       0.00     -0.272     1.65     1.61     1.88       0.00     -0.544     1.35     1.31       0.00     -0.544     1.165     1.25     0.86       0.00     -0.68     1.075     1.155     0.86       0.00     -0.85     1.075     1.155     0.76       0.00     -0.86     0.99     0.655     pumping       0.00     -1.02     0.896     0.90     0.81       0.00     -1.02     0.896     0.90     0.81	0.00	0.00	0.00	1.695	1.74	1.67		
0.00     0.00     1.65     1.58     1.58       0.00     - 0.272     1.55     1.34     1.58       0.00     - 0.544     1.35     1.415     1.32       0.00     - 0.544     1.247     1.35     0.98       0.00     - 0.544     1.247     1.35     0.98       0.00     - 0.68     1.075     0.98     0.76       0.00     - 0.816     0.995     1.05     0.76     pumping       0.00     - 1.02     0.896     0.90     0.81     pumping	0.00	0.00	0.00	1.695	1, 725	1.64		
0.00 - 0.272 1.55 1.61 1.58 0.00 - 0.408 1.44 1.52 1.34 0.00 - 0.544 1.35 1.45 1.22 0.00 - 0.544 1.155 0.88 0.00 - 0.816 1.155 0.88 0.00 - 0.816 0.995 1.05 0.76 0.00 - 0.822 0.896 0.90 0.81	0.00	0.00	0.00	1, 65	1.688	1.59		
0.00     - 0.408     1.44     1.52     1.34       0.00     - 0.544     1.35     1.415     1.32       0.00     - 0.544     1.147     1.315     0.88       0.00     - 0.544     1.167     1.225     0.88       0.00     - 0.68     1.075     1.135     0.86       0.00     - 0.852     1.06     0.76     pumpting       0.00     - 1.02     0.896     0.90     0.81       0.00     - 1.02     0.896     0.90     0.81	0.00	0.00	- 0.272	1, 55	1.61	1.58		
0.00 - 0.544 1.35 1.415 1.32 0.00 - 0.544 1.247 1.315 1.21 0.00 - 0.544 1.25 0.86 0.00 - 0.89 1.075 1.185 0.86 0.00 - 0.895 1.05 0.76 0.00 - 0.952 0.896 0.90 0.81	0.00	0.00		1, 44	1.52	1.34		
0.00     - 0.544     1.247     1.315     1.21       0.00     - 0.544     1.165     1.225     0.98       0.00     - 0.68     1.075     1.135     0.66       0.00     - 0.816     0.985     1.05     0.76     pumping       0.00     - 0.952     0.896     0.90     0.85     pumping       0.00     - 1.02     0.896     0.90     0.81     pumping	). 00	0.00		1, 35	1.415	1.32		
0.00     - 0.544     1.165     1.225     0.98       0.00     - 0.68     1.075     1.135     0.86       0.00     - 0.816     0.995     1.05     0.76     pumpting       0.00     - 1.02     0.896     0.90     0.81	0.00	0.00		1.247	1,315	1.21		
0.00 - 0.68 1.075 1.135 0.86	00.0	0.00		1, 165	1.225			
0.00 - 0.816 0.995 1.05 0.76 pumping 0.00 - 0.852 0.896 0.90 0.81	00.0	0.00	- 0.68	1.075	1, 135			
0.00     - 0.952     0.896     0.90     0.81       0.00     - 1.02     0.896     0.90     0.81	00.	0.00			1, 05			
0.00 - 1.02 0.896 0.90 0.	00.	0.00		-		0.555		1 1
0,00 -1.02 0.896 9.90 0.								
0.00 - 1.02 0.896 0.90 0.								
		0.00	-i	0.896		0.81		
				-				

Table 4-3

Hydraulic Head Variation and Subsidence during the Subsidence Test in Relation to Canal Stage

Location B

Ground Surface Level : z=1.730m

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December
Plot,
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	Pressure H	Head Observed by Tensiometer	nsiometers	Total Head obs.	, by Piezometers			
Time	Depth : 10cm	Depth : 25cm	Depth : 60cm	P. NO. 3	P. NO. 4	Canal Stage	Subsidence	Remarks
· .	z= 1.630m	z= 1.480m	z= 1.130m	z= 0.730m	z= 0.230m		日日	
10:50	0.00	0.00	0.00			1.73	0	pumping start
11 10	0.00	0.00	0.00	1.765	1. 759	1.70	0	
11:30	0.00	0.00	0.00	1. 73	1.76	1.67	0	
11:50	0.00	0.00	0.00	1.698	1.732	1.64	0	
12:10	0.00	0.00	0.00		1,687	1.59	2	
12:50	0.00	0.00	0.00	1.588	1, 605	1.58	4	
13:30	0.00	0.00	- 0.272		1.485	1.34	2	
14:00	0.00	0.00	- 0.272		1.375	1, 32	8	
14:30	0.00	0.00	- 0. 272	1.28	1.27	1.21	10	
15:00	0.00	0.00	- 0.408		1.16	0.0	133	
15:30	0.00	0.00	- 0.408	1.103	1.095	0.86	15	
16:00	0.00	0.00	- 0.544	1.055	1,028	0.76	16	
16:30	0.00	0.00	- 0,68			0.555	:	pumping stop
71.0								
77 /7	00 0	000	ŀ	7100	760 0	10.0	66	
OD: CT	0.00	0, 00	0. 1000	0, 914	0.324	0.0	0.7	
:								

サーザ Table Bacho Swamp Test Plot, 1 December '92

Hydraulic Head Variation during the Subsidence Test in Relation to Canal Stage

Location

pumping stop pumping star Remarks Ground Surface Level : z=1.730m Subsidence Canal Stage 0.81 by Piezometers z= 0.230m 1. 757 1. 695 1. 45 1. 156 1. 156 1. 16 1. 16 1. 16 1. 16 1. 16 1. 16 1. 16 P. NO.6 0.864Total Head obs. z = 0.730m1. 751 1. 718 1. 718 1. 255 1. 09 1. 025 P. NO.5 0.896 Depth : 60cm z=1.130m0.00 Pressure Head Observed by Tensioneters Depth: 25cm z= 1.480m 0.00 Depth: 10cm z = 1.630m0.00 0.0 0.00 0.0000 0.000.00 0.00 0.00 11:10 11:30 11:50 12:10 12:50 14:00 15:00 16:30 10:50 Time

Table 4-5

Hydraulic Head Variation during the Subsidence Test in Relation to Canal Stage

Location D

Bacho Swa	Bacho Swamp Test Plot, 1 December '92	er '92			Ground S	Ground Surface Level : z=1.730m	730m
	Pressure	Pressure Head Observed by Tens	by Tensiometers	Total Head			
Time	Depth: 10cm	Depth : 25cm	Depth : 60cm	Piezoneter	Canal Stage	Subsidence	Ren
	z= 1.630m	z= 1.480m	z= 1.130m	NO. 7			
		٠	-	z= 0.230m			
10:50	0.00	0.00	0.00		1. 73		nidmnd
11:10	0.00	0.00	0.00	1. 798	1.70		
11:30	0.00	0.00	0.00	1.79	1.67		
11:50	0.00	0.00	0.00	1.778	1.64		
12:10	0, 00	0.00	0:00	1.755	1.59		
12:50	0.00	0.00	0.00	1.705	1. 58		
13:30	0, 00	0.00	- 0.272	1, 615	1.34		
14:00	0.00	0,00	- 0.408	1.465	1.32		
14:30	0.00	0.00	- 0.544	1.342	1, 21		
15:00	0.00	0.00	- 0.544	1. 23	0.98		
15:30	0.00	0.00	- 0.68	1.14	0, 86		
16:00	0.00	0.00	- 0,816	1.045	0.76		
16:30	0.00	0.00	- 0,816		0.555		pumpin

pumping start

Remarks

			pumping stop										
0.80	0.86	0.76	0.555		0.81								
	1.14	1.045			0.897								
- 0.544	- 0.68	- 0,816	- 0.816		- 0.816								
0.00	0.00	00.00	0.00		0.00								
00.0	0.00	0.00	0.00		0, 00								
	5:30	6:00	16:30	2	15:00	<b>!</b>			-				

Piezometric Bead Variation and Subsidence with Time in Relation to Canal Stage

Location C Location D  tal Head Total Head Total Head  0.730m z= 0.230m z= 0.230m	11 Head Total 0.230m z= 0.7	Locat Head 730m 730m 730m 730m 730m 730m 730m	
d Total Head Total  z= 0.230m z= 0.2	Z= 0.7 0.6 0.0 0.8 1.1 1.2 1.6 1.6		Total Z= 0.
2= 0.230m z==	2 2	0. 230 1. 22 1. 325 1. 325 1. 325 1. 325 1. 325 1. 325 1. 325	0.730m z= 0.
0.085 0.985 0	1. 60 1. 60 1. 60 1. 65 1. 65	1.325	085 22 22 335 595 46
0.985		1.315	085 22 335 365 46
0. 98 0. 98 0. 985 1. 10 1. 27		111111111111111111111111111111111111111	085 22 335 365 46
0. 98 0. 98 0. 98 0. 98 1. 10 1. 27		11.32	085 22 335 365 46
0. 98 0. 98 0. 995 1. 10 1. 51		1.32   1.09   1.09   1.36   1.3	085 22 335 365 46
0. 68 0. 92 0. 92 0. 995 1. 10 1. 51		1.32 1.09	085 22 335 365 46
0. 68 0. 92 0. 92 0. 995 1. 10 1. 27		1.32	085 22 335 365 46
0. 68 0. 92 0. 995 1. 10 1. 27		1.09	085 22 335 365 46
0.85 0.92 1.10 1.10 1.27 1.51 1.51		1.32 1.33 1.32 1.32 1.32 1.32 1.32 1.32	22 335 365 46 46
0.85 0.92 0.995 1.10 1.27 1.27 1.51		1. 22 1. 315 1. 36 1. 64 1. 325	222 3335 505 46
0.92 0.995 1.10 1.27 1.27 1.51 1.51		1. 315 1. 36 1. 325 1. 325	335 365 595 46
0.995 1.10 1.27 1.27 1.51 1.51		1.36	365 595 46
1.27		1,325	595 46
1, 27		1, 325	46
1.51	1.60 1.65		
1.51	1.60	1	
1.51	1.60		
o.		1.00	
		1, 708	1.655 1.708
		1.723	٠.
1.662	1.68	1.738	
		1.745	1.715 1.745
	1	1	
_		1	
. 71 1. 71 1. 75	H	1.775	1.70 1.775
1.715 1.	1.73	1.78	
745 1.74 1.		1.79	
		1	-
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	.1	ı	ļ
	1		1
_	1	1	-

Note : + with the subsidence figures means swelling

Piezometric Head Variation and Subsidence with Time in Relation to Canal Stage

	Local	Locatin A	Loca	Location B	Location	ion C	Location D	!  .		
Date	Total Head	Canal Stage	Subsidence	Remarks						
	z= 0.730m	z= 0.230m	z= 0.730m	z= 0.230m	z = 0.730m	z= 0.230m	z= 0.230m		at Location B	
					: :				TLCTI	
-	1		1	1	I	l	ļ		+30	
2	0.896	06.0	0.914	0.922	0.896	0.864	0.897	0.81	+ 7	
က	J	ì	١	1	1	l	į.		ı	
4	1	1	1	1	_		I	ţ	1.	
ഹ	J	1	1	1	1	l	-	1		
တ					1	-	ı			
-1		1		1		ı		,	1	
∞	1, 32	1.322	1.322	1.37	1.395	1.325	1.405	1.32	+ 3	
<b>о</b>	1.46	1.415	1.47	1.486	1.473	1.417	1.491	1.42	<b>7</b> +	
10	1.585	1.555	1.54	1,63	1.615	1, 537	1.625	1,55	7 +	
7.7	1.62	1.616	1.655	1.66	1.64	1.63	1.666	1.58	+ 5	
1.2	]	1	1	1		ı	ı	ŧ.	1	
13	1.66	1.675	1.668	1.70	1,663	1.655	1.69	1.61	1 +	
1.4	1.664	1.66	1.675	1.705	1.667	1.627	1.664	1.61	+10	:
15	1.453	1.53	1.52	1.525	1.43	1, 513	1.554	1.49	+12	
9 7	1.371	1.377	1.385	1.40	1.373	1.355	1.39	1.30	+15	
<u>-</u>	1.24	1.243	1.25	1.263	1.24	1. 215	1.256	1.16	+13	
∞ ∞	1. 10	1.10	1, 11	1.12	1.09	1.072	1, 11		+20	
	1.065	1.065	1,06	1.057	1.06	1.038	1.065	0.98	+20	
2 0	1.08	1,05	1.075	1.08	1.07	1.06	1.10	1.05	+20	
	1.16	1.155	1, 17	1.17	1.152	1, 137	1, 17	1.08	+20	
2 2	1.067	1.077	1.115	1.11	1.07	1.05	1.085	0.99	+20	
	1.25	1,245	1.205	1.235	1.225	1.205	1.22		+20	
	1.03	1,055	1.05	1,095	1.05	1, 115	1.06	0.97	+15	
	0.93	0.945	0.99	0.95	0.93	0.95	0.905		+15	
26	1.40	1.02	1.32	1.17	1.19	1. 12	1.16	1.15	+20	
	1.41	1.26	1.40	1.27	1.27	1. 18	1.17	1	+20	
	1,395	1.29	1.20	1.29	1.305	1, 265	1.30	1.21	+20	
5 8	1.175	1, 14	1.155	1.16	1, 145	1, 105	1.15	1.06	+20	
	1.047	1.02	1.03	1.05	1.03	0,985	1.03	0.93	+17	
c				_						

Note : 4 with the subsidence figures meams swelling

Piezometric Head Variation and Subsidence with Time in Relation to Canal Stage

		Remarks																																	
e Level : z=1.730m	1	Subsidence	at Location B	EG.		ı	•	+50	+20	+20	+22	+22	+25	1	+22	+23	+23	+25	+25	+26	+30	+25	+20	+18, 5	+14	+14	+10	+10	+15	+15	ı	1	+15	+10	+15
Ground Surface Level		Canal Stage				 -	1	-	1.12	1.16	1.18	1.20	1.38	1.26	1.26	1.27	1.29	1.30	1.32	1.32	1.30	1.32	0.90	0.82	0.70	0.76	0.81	0.85	0.82	0,90	-	ı	1.06	1.10	1.20
	Location D	Total Head	z= 0.230m			ı		1.183	1. 22	1. 235	1.27	1, 285	1.33	1.32	1.343	1.363	1.377	1.371	1.405	1.375	1.375	1.405	1.09	0.91	0. 79 · · ·		0.94	1.03	0.97	1.01	Ţ	ı	1.09	1, 18	1.285
·	on C	Total Head	z= 0.230m			1	1	1.11	1.175	1.21	1.23	1.26	1. 28	1: 27	1.37	1.33	1.305	1.346	1.37	1: 335	1.315	1.345	1.05	0.86	0.75	0.82	0.97	0.92		0.965	_	1	1.04	0.76	1. 20
	Location C	Total Head	z= 0.730m		-	ı	-	1.19	1.22	1,255	1.285	1.305	1,385	1.36	1.354	1.37	1.32	1.365	1.41	1. 42	1.40	1.41	1.11	0.93	0.815		l -1	0.965	0.94	1.52	****	1	1. 22	1, 26	1.30
	tion B	Total Head	z= 0.230m		_	1		1.19	1.22	1.252	1.275	1.29	1.33	1.32	1.36	1.375	1.372	1.39	1.41	1:38	1.37	1.393	1.06	0.92	0.79	0.86	0.99	0.975	0.975	1.02	***	1	1.10	0.59	1.305
	Location	Total Head	z= 0.730m			i	-	1.43	1.175	1, 236	1.28	1.28	1.375					1.395	1, 355	1.37	1.38		1.17		0.80	0.88	1.09		0.975	1.00	1	1	1.05	1.09	1.295
January '93	n A	Total Head	z= 0.230m			ı	1	1.155	1.21	1.24	1.255	1.28	1.30	1.30	1.336		1.332						1.085	0.903	0, 785		0.89				1	-	1.15	1.05	1.28
np Test Plot, January	Locatin A	Total Head	z= 0,730m			1	1	1.185	1. 225	1.255	1, 285	1.305	1.365	1.34	1:365		1.363	1.38	1.415	38	1.365	1.385		0.88		0.876	0.974	1.02	1.035	1.06	1		1.19	1. 25	1.38
Bacho Swamp		Date				23	က	4	ഹ	မ	2	ထ	တ	10	1.1	12	13	1.4	15	1 6	1	1		2 0						1					

Note: + with the subsidence figures means swelling

Total Head Total Head		Location Total Head   To	lon C Total Head	Location D Total Head	Canal Stage	Subsidence	Remarks
	0 =2	z= 0.730m	z= 0.230m	z= 0.230m		at Location B	
1.41		1.39	1.24	1.33	1.29	+15	
1.475	1.49	1.575	1. 43	1, 45	1.39	+20	
. 48	1.46	1.58	1. 41	1.48	1.39	+30	
. 505	1.47	1.465	1.445	1.48	1.39	130	
6	1. Jo	7:02	#C -T	1.00	1:40	100	
		1					
1. 55	1.60	1.60	1.58	1.615	1.53	+36	
1. 59	1.66	1.655	1.61	1.65	1.57	+40	
1. 43	1.47	1, 49	1.43	1.598	1.405	+35	
1.39	1.365	1.36	1.38	1, 355	1.26	+30	
1. 32	1,245	1.254	1.21	1.255	1.15	+25	
			1	1	-	1	
	,	1	1	1	-	1	
1, 305	1. 28	1.31	1.275	1.31	1.22	+25	
1, 215	1.185	1.16	1.205	1.14	1.06	+23	
1.02	1.09	1.09	0.99	1.07	0.99	+20	
0.96	0.953	0.95	0.895	0.93	0.835	+18	
0.88	0.87	0.865	0.81	0.855	0.75		
	,		-		1		
		_	1	1	ı		
1.06	1.05	1.065	0.935	1.405	0.96	+18	
0.92	0.92	0.92	0.87	0.90	0.815	+16	
0.98	0.985	1.00	0.94	0.97	0.88	+17	
1.025	1.00	1.04	0,99	1.03	0.935	+18	
1.11	1.10	1.13	1.08	1.11	0.99	+16	
	ı	].	1	1		1	
_			1	1	1	١	
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Note : + with the subsidence figures means swelling

Table 4-10

Bacho Swamp Test Plot, March 93

Piezometric Head Variation and Subsidence with Time in Relation to Canal Stage

Ground Surface Level : z=1,730m

Location A
ਾ ਨਾ
z = 0.730m $z = 0.230m$ $z = 0.730m$ $z = 0.2$
1.16 1.
. 23 1. 20 1. 22
0.94 0.9 1.07
.81 0.79 0.83
. 89 0. 85 0. 84
015 1.00 0.97
0.81 0.82
76 0.71 0.73
0.67
1, 33 1, 20 1, 26
1.17
1, 17
0.99
1,17
1
l
_

Note : + with the subsidence figures means swelling

Table 4-11

Piezometric Head Variation and Subsidence with Time in Relation to Canal Stage

Bacho Swamp	Test	Plot, April 93						Ground Surface Level	Level : z=1.730m	
	Loce	Location A	Loca	Location B	Location C	ion C	Location D			
Date	Total Head	Total Head	Total Head	Total Head	Total Head	Total Head	Total Head	Canal Stage	Subsidence	Remarks
	z= 0.730m	z= 0.230m	z= 0.730m	z= 0.230m	z= 0.730m	z= 0.230m	z = 0.230m		at Location B	
			-						ma	
	1.14				1.09	1.06	1.13	1,00	+20	
2	1.03	0.94	0.98	0.99	0.99	0.93	0.97	1.12	+18	
က	ı	-	ţ	1	1	1	ı	1	J	
77	ı	-	ţ			i	-	1	ı	
ഗ	1.07	1.04	1.02	1.02	1.04	1.00	1.04	1.07	+18	
9	1.07	1.04	1.01	1.03	1,04	1.00	1.03	1.11	+18	
7	1.07	1.02	1.00	1.02	1.05	0.99	1.02		+18	
∞	1, 11	1,05	1.04	1,06	1.09	1.02	1.07	1.03	+20	
ტ	1, 14	1.05	1.08	1,07	1,09	1.05	1.13	1.00	+19	
1 0 1	1	1	t	-	1	1	_		j	
11		1	l	j	1	1	1	I		
12	1.26	1.17	1.16	1, 18	1.17	1,11	1.15	0.88	+22	
ದ	1	1		1	-	1		l	1	
1.4	1		_		1	1	1	4	-	
15	1.68	1.64	1.63	1.64	1.64	1.59	1.65	0.52	+43	
16	1.72	1.67	1,66	1.65	1. 68	1,65	1.68	0.46	+43	
1.7	1	Ī	1	1	1	1	1			
18	1				-		1	1		
1.9	1.73	1.69	1, 68	1.71	1.69	1.66	1,69	0.53	+48	
2.0	1.54	1.51	1,50	1.51	1, 51	1. 48	1.51	0.57	+40	
2 1	1	1, 48	1.47	1, 49	1. 48	1.45	1.49	0, 79	+39	
2 2	1.30	1.25	1.23	1.27	1, 26	1. 22	1.26	0.83	+28	
2 3	1, 21	1.16	1.17	1.16	1, 17	1.13	1.16	1.16	+25	
2.4	1	ı	:	1	1	1	1	1	1	
2 5	1	-	J	J	1	-	***	1	1	
2 6	1.05		0.94	1.00	1.03	1.07	1.00	1.39	+16	
2.7	0.74	0.64	0.70	0.70	0.70	0.84	0.67	1.43	+10	
2 8	0.81	0,74	0.77	0.85	0. 78	0.72	0.75	1.35	+10	
2 9	0.73	0.64	0.72	0.67	0.66	0.62	0.65	1.51	+10	
3 0	0.77	0.70	0.72	0.72	0.73	0.67	0.70	1.40	6+	
3		-		1			1	1		

Note : + with the subsidence figures means swelling

Table 4-12

Piezometric Head Variation and Subsidence with Time in Relation to Canal Stage

		Remarks	:																			8													
evel : z=1.730m		Subsidence	at Location B	mm	_	1	4 7	+ 5	+ 5	+ 5.		_	±5	÷	+ 3	+ 2	0	•	1		+ 5	<b>1</b> +	0	0	1	-	0	- 1	- 1	_		-	1		· <b>I</b>
Ground Surface Level	.•	Canal Stage			-	Ï	1.36	1.49	1.44	1.51		ı	1.34	1.44	1.50	1.51	1.51	-			1.32	1.44	1.48	1.50	-	_	1.38	1,50	1.53	1,40	l	_	1	l	
	Location D	Total Head	z = 0.230m			1	0.745	0.615	1	0.67	0.595	_	1	0.76	0.66	0.61	0.60	0.605		L	_	0.775	0.665	69.0	0.61		_	0.72	0.605	0.60	0.70		ı	ı	!
	ion C	Total Head	z = 0.230m			l	0.71		1	0.64	0.54	1	ı	0, 72	0.62	0.57	0.56	0.555	1	-	1	0.64	0.59	0.62	0.57	:	ı	0. 70	0.58	0.57	0.66	ı	1	1	1
	Location	Total Head	z = 0.730m		1	_	0.77	0.73	.	0.73	0.73	1		0.79	0.73	0.73	0.73	0.73		1		0.80	0.73	0.73	0.73	1	ı	0.74	0.73	0.73	0.73	ı	1	ļ	1
	Location B	Total Head	z= 0.230m		ŀ	1	0.755	0.635	ŀ	0.69	0,565	1		0.78	0.67	0.63	0,62	0.615	1		1	0, 76	0.68	0.65	0,63	1	1	0.735	0.620	0.61	0.70	1	1	1	1
	Loca	Total Head	z = 0.730m				97.0	0.73	ŀ	0.73	0, 73	ì		0.73	0.73	0.73	0.73	0.73	ŀ	1	•	0.81		0.73		1	1	0.74	0, 73	0, 73	0.73	-	1	,	1
May '93	in A-	Total Head	z= 0.230m		]	j	0.745	ι -		0,66	0.57	1		0.75	0, 66	0.61	0, 60	0.595	1	l	1	0.62	0.665	0.635	0.61			0.72	0.605	0.60	0.70		1	I	I.
mp Test Plot,	Locatin	Total Head	z= 0.730m			-	0.80	0.73	1	0.73	0.73	ļ	-	0.81	0.73	0.74	0,745	0.73	ì	ı		0.86	0.77	0.73		1	ı	0.815	0.73	0.73	0.81	1	1	1	   
Bacho Swamp Test		Date				2	က	4	ı	9	2	∞	6	10	11	2	ر ا	1 4	15	 9	Ι.	ω,	6	2 0	2 1	2 2	2 3	2.4	2 2	2 6	2.7	2 8	2 9	3 0	3

Note: + with the subsidence figures means swelling

Tensioneter Head Variation in Relation to Rainfall, Evaporation from Ground and the Canal Stage

Location A

					֡			
	<b>α</b>	ressure Hea	d					
Date	Depth : 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage		Remarks
	z= 1.630m	z= 1.480m	z = 1.130m	mm/day	nn/day		at location B	
<b></b> 1	1	1		1		-		
2	- 0.136			-		-	-	
က	0.00	0.00	- 1.088	_		_	•	
4	0.00	0.00	- 0.816	1		-	-	
ភ	1	0.00	- 0.816	ì			. 0	
မ	ı	l		1		1	l.	
7	1	0.00	0.00	1		1	0	
ω	1		-	-			-	
က	1	0.00	- 0. 408				0	
1 0	0.00	0.00	- 0.544	_			+ 5	
1 1	0.00	0.00	- 0.408	_		1	+ 5	
1.2	0.00	00.00	0.00	1		1, 61	+10	
13	0.00	0.00	- 0.544	1		1.55	+15	
1	0.00	0.00	- 0,408	1		1.47	+13	
1 2		1				-		
1 1	0.00	0.00	- 0.136	]		1.56	+15	
	0.00	0.00	- 0.136			1.62	+20	
- - - -	0.00	0.00	- 0.136	_		1.64	+21	
1	0.00	0.00	- 0.136	1		1.66	+23	
2 0	0.00	0.00	- 0.136	1		1.65	+24	
2.1		1	1	1		+		
2 2		1	1	1		au.	_	
23	0, 00	00.00	0.00	_		1,69	+26	
2 4	0.00	0.00	0.00	_		1,69	+22	
2 5	0.00	0.00	0.00	1		1.70	+28	
2 6		-	1	-		1	•	
2.7	1	J	J	1		1	1	
- 2 8	ı	ı	.1	1			•	
2 9	-	1	-	-			ı	
30		į.	1	1			l	
,								

Note: + with the subsidence figures means swelling.

Tensioneter Read Variation in Relation to Rainfall. Evaporation from Ground and the Canal Stage

									[ ]		<u> </u>	<u> </u>	<u> </u>						-		·				-			<u> </u>	[	_	<u> </u>	<u> </u>	:	Γ
30m		Remarks		guidmud													Buidmnd	pumping	guidand	pumping	pumping			guidmnd	pumping	pumping	Burdund	Buidand	guidand		puidmnd	pumping		
Ground Surface Level : z=1.730m		Subsidence	at location B	+30	+ 7					1	eo +	7 +	7 +	+ 5		+ 7	+10	+12	+15	+13	+20	+20	+20	+20	+20	+20	+15	+15	+20	+20	+20	+20	+17	
Ground Sur		Canal Stage		1.73	0.81	-	-	1		ŀ	1.32	1. 42	1.55	1.58	1	1.61	1, 61	1.49	1.30	1.16	1.01	0.98	1.05	1.08	0.99	1.18	0.97	0.88	1.15	1	1.21	1,06	ļ	
		Evaporation	mn/day																						-									
		Precipitation	mm/day		0	ı	1	1	1	1	1	19.8	44.5	1.9	1	0.7	0	0	0	0	0, 1	0	3.0	က	3, 1	117.0	6.6	27.5	115.0	0	1.0	0	2.0	
	ס	Depth : 60cm	z= 1,130m	0.00	- 1.02	_	-	-	_	_	- 0.544	- 0.544	- 0,408	- 0.136	-	- 0.272	- 0.272	- 0.408	- 0.544	- 0.748	- 0.816	- 0.952			၀	- 0.68		- 0.952	- 0.816	- 0,748	- 0.68	- 0.68	- 0.952	
mber 192	ressure Hea	Depth : 25cm	z= 1,480m	0.00	0.00						0.00	0.00	0.00	0.00	_	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0, 00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	00.00	0.00	
Bacho Swamp Test Plot. December '92	۵.,	Depth : 10cm	z= 1.630m	0.00	0.00	ļ	ļ	****		ļ	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	0.00	- 0.408	- 0.408	- 0.544	- 0.68	- 0.408	- 0.408	0.00	0.00	0.00	0.00	0.00	- 0.272	- 0.272	- 0.408	
Bacho Swar	- 1	Date		1	2	က	4	വ	9	7	8	6	1.0	1 1	1.2	1 3	1.4		1 6		 Θ	٦ ص	20	7 7	2.2	22	2 4	2 5	2 0	2 7	60	5 9	O က	3 1

Note: + with the subsidence figures means swelling.

Tensioneter Head Variation in Relation to Rainfall. Evaporation from Ground and the Canal Stage

		-					
<b>ሲ</b>	ressure Hea	þ	:				
Depth : 10cm	Depth: 25cm	Depth: 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
z= 1.630m	z= 1.480m	z = 1.130m	mm/day	mm/day		at location B	
: :	2.5	i					-
		1	ļ		ļ	l '	
					1	1	
		1				1	
0.816	0.00	- 0.816	2.6			+20	pumping
.816	0.00		0.5		1.12	+20	Buidmnd
0.816	0.00	- 0.68	0		1.16	+20	guidand
0.68	0.00	- 0.544	0		1.18	+22	guidand
	0.00	- 0.68	0.4		1.20	+22	pumping
0.68	- 0.136		0		1.38	+25	
088	1		1.7		1.26	1	
816	0,00	- 0.68	0		1.26	+22	guidand
0.816	00.00	- 0.68	0		1.27	+23	pumping
. 68	0.00	- 0: 68	37.0		1. 29	+23	pumping
. 68	0.00	- 0.544	4.7		1.30	+25	pumping
408	00.00		0		1.32	+25	guidand
408			0		1,32	+26	pumping
0.544		- 0.544	2.0		1.30	+30	pumping
544	00.00		3.1		1. 32	+25	guidmud
408	0.00	- 0.68	2.6		0: 80	+20	Buidmnd
. 68	0.00	- 0.952	1.0		0.82	+18.5	guidand
0.816	0.00	- 1:088	0		0.70	+14	pumping
0.952	- 0.272	- 1.088	0		0.76	+14	pumping
0.952	- 0.272	- 1,088	0		0.81	+10	guidmnd
. 088	- 0, 408	- 1.088	0		0,85	+10	guidand
. 088	- 0.272	- 0.952	. 0		0.82	+15	guidmnd
0.544	0.272	- 0.952	0		0.30	+15	pumbing
,	Ī		-			1	
						ı	
.136	- 0.136	- 0, 408	71.5		1.06	+15	pumping
0.136	- 0.136		2.2		1.10	+10	guidand
136	1	- 0.818	-		76 1	u.	

Note: + with the subsidence figures means swelling.

Tensioneter Head Variation in Relation to Rainfall, Evaporation from Ground and the Canal Stage

															:												· -		· []					
	Remarks				guidmud	guidmnd		pumping				guidand	Buidand -	guidand	puidand			purdund	pumping	pumping	guidand				pumping					N				
	Subsidence	at location B	mm	+15	+20	+30	+30	+30		1	+36	+40	+35	+30	+25			+25	+23	+20	+18	1		-	+18	+16	+17	+18	+16	The second second	1		=	
	Canal Stage			1: 29	1.39	1.39	1.39	1.48		ı	1.53	1.57	1,405	1.26	1.15	_	1	1.22	1.06	0.99	0.835	0.75			0.96	0.815	0.88	0 935	0.99					
	Evaporation	mm/day																														100		
	Precipitation	nm/dey		0	13.0	2.4	0	0	-	1	0.:	0	0	0	0.6	-	1	0	0	0	0	0			0	0	. 0	1.1	0		1			
q	Depth : 60cm	z = 1.130m		- 0.68	- 0.408	- 0.544	- 0.544	- 0.408	1		- 0.408	- 0.408	- 0.544	- 0.68	- 0.68	-	1	- 0, 68	- 0.816	- 0.816	- 1, 088	- 1.088			- 0,952	- 1,088	- 0,952	- 0.952	- 0.816		ŧ			
sure Hea	Depth : 25cm	2= 1.480m		0.00	0.00	0.00	- 0, 136	0.00	-	ı	0.00	0.00	0.00	0.00	0.00	1	1	0.00	0.00	0.00	- 0.272	- 0.272		ļ	- 0.408	- 0.544	- 0.544	0.680	- 0.544	_	1			
Dacilo Swamp rest filot, regularly	Depth : 10cm	z= 1.630m		- 0.272	- 0.272	- 0.408	- 0.408			ı	- 0.136	0.00	- 0.272	- 0.272	- 0.34	1	I	- 0.544	- 0.544	89.0 -	- 0.952	- 0.952	_	1	- 1.496	- 1.632	- 1.836	- 2.584	- 2.176	-				
pacific of all	Date				2	က	4	ស	9	7	Ø	6	10	11	1.2	1.3	14	1 2	1.6	1.7	8	1.9	2 0	2.1	2.2	2 3	2.4	2 2	26	2.7	2 8	2 9	3 O	

Note: + with the subsidence figures means swelling.

Tensioneter Head Variation in Relation to Rainfall, Evaporation from Ground and the Canal Stage

Location A

Bacho Swai	Bacho Swamp Test Plot, March	.հ ^93				Ground Surface	Ground Surface Level : z=1.730m	
	a.	ressure Head	p					
Date	Depth: 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1,480m	z= 1.130m	mm/day	mm/day		at location B	
+	١,	(	٥				200	
-₁ C	7.592	50		4		0.91	-10	
7) (			عاد	1		0.88		
2)	٦	- -	ᆌ			1. 21	٦ و	
<b>*</b> L	-i -	j c	┧	1		1.31	- 5	
ဂ	- 1.632	- 0.816		ŀ		1.24	- 5	
9		1	ſ	1		-		
		1	i	1				
ထ	- 2.040	- 0.272	- 1.088	12.9		1.32	2 1	
6	- 2.448	- 0.544	- 1,088	1		1.29	1 22	
1 0	- 2.584	- 0.952	- 1.292	1		1.40	1 23	
, T	- 3.128	- 1.088	- 1.360	1.5		1.50	-+	
1.2	- 1,496	- 0.272	- 1.224	18.7		1.96	+ 2	
1 3		1		1		****	1	
1.4		***************************************		1		1	i	
1.5		0		154.3		1.01	-10	
1 6	- 0.136	0	- 0.816	13.8		1,05	000	
1.7	-0.272	0	- 0.816	1		1, 12	6 -	
8	- 0.408	0	- 0.816	i.c		1.16	S I	
1 9	- 0.272	Ó	-0.816	31.7		1.90	2 -	
2 0								
2 1								
2.2								
2 3								
2 4			-					
2								
2 6								
2.7								
2 8			-					
2 9								
30								
က	ŀ							
	Note: + 1	with the subsidence	figures means swelling.	elling.				

+ With the subsidence, - means subsidence,

J -- 155

4-18 Table

Tensioneter Head Variation in Relation to Rainfall, Evaporation from Ground and the Canal Stage

		iks S																			-										-				
		Remarks																													:				
Level : z=1.730m		Subsidence	at location B	II DE	+20	+18	1		+18	+18	+18	+20	+19			+22	-	41-	+43	+46	ı	1	+48	+40	+39	+28	+25	1	1	+16	+10	+10	+10	6 +	
Ground Surface Level	:	Canal Stage	:		1.00	1.13	l		1.12	1.11	t	1	1.00			0.88			0.52	0, 46			0, 53	0.58	0.79	0.83	1.16			1.39	1.43	1.35	1, 51	1.40	
		Evaporation	mm/day																																
		Precipitation	nn/day		1	1	1	-	1	-		tamen .	1	-	1	1	1		46	50, 5		_	5.0	0.0	1		1	_	-	0.0	0.0	-	0.0	0.0	-
	þ	Depth : 60cm	z= 1.130m		- 0.952	- 0.952	1	ì	- 0.952	ં	- 0.952	- 0.952	- 0.816			- 0.816	-	1	- 0.408	- 0.408	-	-	- 0.408	- 0.544	- 0.544	- 0.680	- 0.816	1		- 0.952	- 1.088	- 1.088	- 1.020	- 1.292	1
.1 *93	ressure Hea	Depth : 25cm	z= 1.480m		0	- 0.272	1		- 0.544	- 0, 544	- 0.544	- 0.816	- 0.680	1	1	0	ŀ		0	0	1		0	0	0	0.	0					- 0.680	- 1.088	- 1.292	-
Swamp Test Plot, April	d.	Depth : 10cm	z= 1.630m		- 0.544	- 0.680	,		- 1.496	- 1.360	- 1.632	- 2.584	- 2.448	1		- 1.360		-	C	0			0	- 0.136	-0.136	- 0.272	- 0.408		· .	-0.816	- 1.088	- 1.224	- 1.632	1.904	
Bacho Swan		Date			r-1	2	က	4	ഹ	တ	7	∞	თ	1 0	11	1.2	13	1.4		16	1.7	,	1 8	- 1		ı		- 1	ŀ	- 1			- 1	- 1	

Note: + with the subsidence figures means swelling.

Tensioneter Head Variation in Relation to Rainfall, Evaporation from Ground and the Canal Stage

Location A

		Remarks																																	
evel : z=1.730m			at location B	TO TO	-	_	L +	+ 5	+ 5	+ 5	+ 5		ŀ	+ 2	+ 2:	+ 3	+ 2	0		l.		+ 5	+ 1	0	0	1		0	- 1	Ţ -	- 1		1	1	J
Ground Surface Level : z=1.730m		Canal Stage			i		1.36	1.49	1,44	1.44	1.51	-		1,34	1.44	1.50	1.51	1.51	_	I		1.32	1.44	1.48	1.50			1.38	1,50	1.53	1.40		•	ľ	
		Evaporation	mn/day									-	1													Ļ	Ţ								
		Precipitation	mm/day		1	1			Į			1		1	28.3	1	1		1	1	-	28.7	22. 7	6, 5	1	1		1	1		23. 4	1		1	
· ;	Ď	Depth : 60cm	z= 1.130m		•	1	- 1.496	- 1.496	- 1.496	- 1.496	- 1, 496	1	-	- 1.632	- 1.224	- 1.360	- 1.496	- 1.632		_	1	- 1.292	1.088	- 1.224	- 1.224	J		-	- 1.428	- 1.496	- 1.224	1		1	1
.93	essure Hea	Depth : 25cm	z= 1.480m		-	1	- 2, 176			- 2.720	- 2,720			- 3.264	- 0,544		- 2.040	- 2.312	1	1		- 1.088	- 0.138	- 0.272	- 0.544		-	- 2,040	- 2.176	- 2.312	- 0.272	1	Ì	J	
Swamp-Test Plot, May	цd	Depth : 10cm	z= 1.630m				- 3, 128	- 2.992	- 3,536	- 3,536	- 3,536	1	1	- 3.672		- 2.652	- 3.604	- 3.536	7	1	1	- 1.224	- 0.680	- 0.816	- 1.088			- 2.176	- 2,448	- 2.516	- 1.088		ļ		1
Bacho Swam	:	Date				2	က	4	ഗ	9		∞	6	ı	H		ლ 11	1 4	1	1 6	1.	1 8	1 8	2.0	2 1	2.2	2 3	2 4	2 5	2 6	2.7	2 8	2 9	3 0	3

Note: + with the subsidence figures means swelling.

Table 4-20

Tensiometer Read Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location B

Ground Surface Level : z=1.730m

Bacho Swamp Test Plot, November '92

					•						:					_	_						<u>.</u>								<u>:</u> -		
	Remarks																	-															
	Subsidence		-	-	ı	1	0	1	. 0	1	0	+ 5	+ 55	+10	+15	+13		+15	+20	+21	+23	+24	-	*	+26	+22	+28		1	1	1	•	-
	Canal Stage		-		1	1	1	1	1		1			1.61	1.55	1.47	-	1, 56	1.62	1.64	1.66	1.65		_	1.69	1.69	1.70	-	1	1		1	
	Evaporation	nn/day						-																									
	Precipitation	mm/day		1			_	1	1	ì	1	1	1			1	ı		1	1	1	1	-		1	1		_	1	1	1		
p	Depth : 60cm	z= 1.130m	-				- 0.68		- 0.408		- 0.272	- 0.272	- 0.272	0.00	- 0.272	- 0, 136	1	0.00							0.00	_	0.00		1	1	1		
ressure Head	Depth : 25cm	z= 1.480m			- 0.272	0.00	0.00	į	0.00	1	0.00	0.00	0.00	0.00	0.00	0.00	-	00.00	0,00	0.00	0.00	0.00	1	1	0, 00	0, 00	0.00	1	1	1	1	ı	
p 1	Depth : 10cm	z= 1.630m			0.00	0.00	0.00	ŀ	0.00			0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.00	00.0	1	ŀ	0.00	0.00	0.00	1	I	1	ı	1	
	Date	_	 ľ	2	က	4	ഥ	9	7	00	6	10	1	12	(C)		1 5	16										2 6					

Note : + with the subsidence figures means swelling,

Table 4-21

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location B

Evaporation Canal Stage Subsidence  mm/day  1,73 + 430	Bacho Swamp Test Plot, December 792 Pressure Head					Ground Sur	Ground Surface Level : z=1.730m	730л
1.73 +30 1.73 +30 0.81 +7 	Ā	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		z= 1,480m		nn/day	nn/day	·	日日	
0.00         - 0.7888         0         0.81         + 7	-	0.00	ľ	1		1 73	067	1
		0.00	ြ	0		0,81	- +	Ser Lumn
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1					1	
			-	-			-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1	ı	1		1	-	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-		ŀ	1		1		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	ļ		1		1		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	_	1		1		1.32		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	$\dashv$	0.00		19.8		1. 42		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00				1.55		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	-	0.00		1.9		1.58		
0.00         0.7         1.61 $+7$ 0.00         0.00         0.7         1.61 $+7$ 0.00         -0.272         0         1.49 $+12$ 0.00         -0.544         0         1.30 $+15$ 0.00         -0.68         0.1         1.16 $+15$ 0.00         -0.68         0.1         1.05 $+20$ 0.544         -0.544         3.5         1.08 $+20$ 0.272         -0.54         3.5         1.08 $+20$ 0.272         -0.68         3.1         0.99 $+20$ 0.00         -0.544         3.5         0.99 $+20$ 0.00         -0.68         2.7         0.99 $+20$ 0.00         -0.68         2.7         0.99 $+15$ 0.00         -0.68         2.0         0.93 $+17$ 0.00         -0.68         2.0         0.93 $+17$ 0.272         -0.68         2.0         0.93 $+17$	-	1					1	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00				1.61		
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00		0		1.61	+10	pumping
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	- 1	0		1. 49	+12	pumping
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	Ĩ.	0		1, 30	+15	pumping
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	1	0		1, 16	+13	pumping
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	_	0, 1		1.01	+20	guidand
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	- 0.272	_	0		0.98	+20	
0.272 $-0.544$ $3.5$ $1.08$ $+20$ 0.272 $-0.68$ $3.1$ $0.99$ $+20$ 0.00 $-0.544$ $117.0$ $0.99$ $+20$ 0.00 $-0.68$ $27.5$ $0.97$ $+15$ 0.00 $-0.544$ $1.5.0$ $0.88$ $+15$ 0.00 $-0.544$ $0.544$ $0.544$ $0.50$ $0.88$ $0.50$ 0.00 $-0.544$ $0.50$ $0.50$ $0.88$ $0.50$ $0.50$ 0.00 $-0.544$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ 0.00 $-0.544$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ 0.00 $-0.544$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ 0.00 $-0.544$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ 0.00 $-0.544$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ 0.00 $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ $0.50$ <td>_</td> <td></td> <td>1</td> <td>3.0</td> <td></td> <td>1.05</td> <td>+20</td> <td></td>	_		1	3.0		1.05	+20	
0. $272$ - 0. 68       3. 1       0. 99 $+20$ 0. $00$ - 0. $544$ 117. 0       1. 18 $+20$ 0. $00$ - 0. $68$ $6. 6$ 0. $97$ $+15$ 0. $00$ - 0. $68$ $15$ $15$ 0. $00$ - 0. $544$ 0       0. $88$ $+15$ 0. $00$ - 0. $544$ 0 $         -$	+		1	3, 5		1, 08	+20	guidend
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-		_	3.1		0.99	+20	pumping
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	1	117.0		1, 18	+20	guidmnd
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	ş	9.9		0.97	+15	pumping
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	~	27.5		0.88	+15 ::	guidend
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-	0.00	1	115.0		1.15	+20	Dumping
- 0.408     1.0     1.21     +20       - 0.544     0     1.06     +20       - 0.68     2.0     0.93     +17		00.0	I	0			+20	0
- 0.544 0 1.06 +20 - 0.68 2.0 0.93 +17		0.00	٠,	1.0		1.21	+20	நம்றிற்ற
- 0.68 2.0		0.00	1	0	-	1.06	+20	pumping
	-	- 0.272	~	2.0		0.93	+17	guidand
	-	ı	***	1		1		

Note : + with the subsidence figures means swelling

4-22

Table

Bacho Swamp Test Plot, January '93

Tensioneter Head Variation in Relation to Precipitation. Evaporation and the Canal Stage

Location B

Ground Surface Level : z=1.730m

	· · · · ·						_			,	r—					·				r	, <u>-</u>		·						r	r	 I		
	Remarks	· ·			:	guidand	pumping	pumping	pumping	gridand			pumping	pumping	guidand	pumping	pumping	guidmnd	Buidmid	guidmad	gridand	guidand	pumping	pumping	pumbing	pumping	Durdwnd	Buidand			gridend	pumping	guidand
	Subsidence	日日	ı	-	1	+20	+20	+20	+22	+22	+25	1	+22	+23	+23	+25	+25	+26	+30	+25	+20	+18.5	+14	+14	0T+	+10	415	+15			+15	+10	+15
	Canal Stage		1	Ţ	1	]	1.12	1, 16	1. 18	1.20	1.38	1, 26	1.26	1.27	1. 29	1.30	1.32	1.32	1.30	1.32	0.90	0.82	0.70	0.76	0.81	0, 85	0.82	0.80	1		1.06	1.10	1.20
	Evaporation	mm/day												-																			
	Precipitation	mm/day	1	1	1	2.6	0.5	0	0	0.4		1.7	. 0	0	3. 7	4.7	0	0	2.0	3.1	2.6	1.0	0	0	0	0	0	0	1	]	71.5	2.2	1.0
þ	Depth : 60cm	z= 1.130m	ı	1	ı	- 0.544	- 0.544	- 0.408	- 0.544	- 0.408	- 0.272	- 0.272	- 0.408	- 0.408	- 0.408	- 0.408	0.272	- 0.544	- 0.544	- 0.272	- 0.68	- 0.816	- 0.816	- 0.952	1	- 0.68	- 0.816	- 0.68	1		- 0.68	- 0.544	- 0.544
ressure Head	Depth : 25cm	z= 1.480ш	1	_	-	- 0.272	- 0.272	- 0.136	- 0.136	- 0,136	- 0.136	- 0.136	0.00			0.00	0.00	_		0, 00	0.00		- 0.408	- 0.408	- 0.408	- 0.544	- 0.584	- 0.408		1	i .I	- 0.136	- 0.136
- d	Depth : 10cm	z= 1.630m	1		1	- 0.272	- 0.272		- 0.408		- 0.408	- 0.544	- 0.408	- 0.272	- 0.272	0.00	0.00	- 0.408	- 0.544	0.00	0.00	- 0.272	- 0.408	- 0.544		- 0.952	- 0.952		_		- 0.136	- 0.136	
	Date		7	2	က	4	വ	9	2	8	6	1 0		1.2	1.3	1.4	1 5	16	1.7	1 8											2 9		

Note: + with the subsidence figures means swelling.

Tensioneter Head Variation in Relation to Precipitation, Evaporation and the Canal Stage

Location B

Locati

Д.	ressure Hea	ס					
Depth : 10cm	Depth : 25cm		Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
z= 1.630m	z= 1.480m	z= 1.130m	nn/day	nn/day			
36	- 0.136	- 0.408	0		1. 29	+15	
36	0.00	- 0.272	13.0		1.39	+20	pumping
36	0.00	- 0.272	2.4		1.39	+30	pumping
136	0.00	- 0.272	0		1.39	+30	
36	0,00	- 0.272	0		1.48	+30	pumping
			_		_	1	
		1	1		1	1	
0	0.00	- 0.136	0		1, 53	+36	
0	0.00	- 0, 136	0		1.57	+40	guidand
0.00	0.00		0		1,405	+35	Suidand
. 0	0.00	- 0.408	0		1.26	+30	pumping
0	0,00	- 0.476	0.6		1, 15	+25	pumbing
	1	1	_		-	-	
		1	_		ļ	1	
272	0.00	- 0.408	0		1.22	+25	pumping
408	- 0.272	- 0.544	0		1.06	+23	pumping
0.8	- 0.272	- 0.544	0		0.99	+20	pumping
<b>2</b> Ω	- 0.408	- 0.816	0		0.835	+18	pumping
0.952	- 0.544	- 0.816	0		0.75	-	
			1		1	1	
	1		1			-	
202	- 0.544	- 0.68	0		0.96	+18	pumbing
S	- 0.68	- 0.816	0		0.815	+16	
32	- 0.68	- 0,68	0		0,88	+17	
32	- 1.632	- 0.68	1.1		0.935	+18	
1.632	- 1, 496	- 0.68	0	-	0.99	+16	
	-	-	1		-	1	
	_				ł	-	
		!					

Note: + with the subsidence figures means swelling.

Table 4-24

Bacho Swamp Test Plot, March '93

Tensioneter Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location B

Ground Surface Level : z=1,730m

Location

				-				
	ď	ressure Hea	ci.	-				
Date	Depth : 10cm	Depth : 25cm	Depth : 80cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1.480m	z = 1.130m	mm/day	mm/day			
								:
F	- 1.496	- 0.544	- 0, 544	4		0.91	-10	
2	- 1.632	- 0.544		1		0.88	-11	
က	- 1.632	- 0.544	- 0.680			1.21	9 -	
4	- 2.176	- 0.816	- 0, 952			1.31	- 5	
ഹ	- 2.040	- 0.952	- 0.816			1.24	- 5	
9		-	****	1		****	1.	
7				-		1		
∞	- 1.496	- 0.544	0.680	12.9		1.32	<u> </u>	
6	- 1.768	- 0.680	- 0.816	1		1.29	LQ:	
10	- 2.176	- 0.952	- 0.952	1		1.40	ස 	
	- 2.380	- 0.952	- 1.088	1.5		1.50	+-1	
1.2	- 1.292	- 0.544	- 0.952	18.7		1.96	+ 2	
13		_						
1.4	1	1		ì		ţ	ı	
1 2	0	0	- 0.408	154.3		1.01	-10	
1.6	0	0	- 0.408	13.8		1.05	<b>⊗</b> 1	
1.7	0	0	- 0.544	1		1.12	L	
	- 0.136	- 0.136	- 0,544	5.1		1.16	9 -	
1 8	0	0	- 0.544	31.7		06.0	1	
							-	
2 2								
,								
2.9								
ı								
3 1								

Note : + with the subsidence figures means swelling.

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location B

Bacho Swamp Test Plot, April '93

Date Depth: 10cm Depth: 25cm Depth: 50cm Precipitation Evaporation Canal Stage Subsidence Remains as 1.830m z= 1.480m z= 1.130m mar/day mar/da		Δ.	ressure Head	ט					
z = 1,630a         z = 1,480a         z = 1,130a         mm/day	ate	Depth : 10cm		1 60	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		z= 1.630m	z= 1.480m	$\overline{}$	mm/day	mn/day		日日	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			ļ						
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	-		히	ှ	1		1.00	+20	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7	0	ေ	Ċ	0.0		1.13	110	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	က	- 1	•	1	1				
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	4	1	Į	1					
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	വ		o	0	0		61	118	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	9	ı	o	0	0		1. 1.0	-   <del>-</del>   -	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	7		Ö	0	0		77.7	α-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	<sub>∞</sub>		0	0	0			067	
1         -	Б		ं	0	0		1 00	071	
1         —		ŀ	1		-		2	0.7	
2         - 0.476         0         - 0.544         0         0.88           3         -         -         -         -         -           4         -         -         -         -         -           5         0	-1	1	ţ		1	-			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2	0.	0	o	0		88 0	66+	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	က	1	1					70	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1.4	1	1						
6         0         0         50.5         0.46           7         -         -         -         -           8         -         -         -         -         -           8         -         -         -         -         -         -         -           8         - </td <td>ഹ</td> <td>0</td> <td>0</td> <td>0</td> <td>46</td> <td></td> <td>1 59</td> <td>- 6VT</td> <td></td>	ഹ	0	0	0	46		1 59	- 6VT	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	9 1	0	0	0	5.05		3 7 0	1.40	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	1 7		1	1			0* 0	140	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$									
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		0	0	0	0 5		0 59	OF 3	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		0	0	o	0 0		2000	140	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		0	0	0	0.0		200	74.7	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		0	C		0 0		0000	60+	
4     — <td></td> <td>C</td> <td></td> <td>اد</td> <td></td> <td></td> <td>0,00</td> <td>+28</td> <td></td>		C		اد			0,00	+28	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$				0.0	0, 0		1.16	+25	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$					L			1	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		1	1	-	_		-	1	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	- 1	이	이	이	0.0		1.39	+16	
8 - 1.496 - 0.816 - 0.952 0.0 9 - 2.312 - 0.816 - 0.680 0.0 0 - 2.584 - 1.088 0.0			히	ା	0.0		1.43	1110	-
9 - 2.312 - 0.816 - 0.680 0.0 0 - 2.584 - 1.088 0.0		┯┪	ା	ં	0.0		3.5	+10	
0 - 2.584 - 1.088 - 1.088		62	$\circ$	o.	0.0		2.5	01.1	
	•	2			0 0		70.7	7.10	

Note : + with the subsidence figures means swelling.

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location B

Bacho Swa	Swamp Test Plot, May	86,				Ground Surface Level : z=1.730m	evel : z=1.730m	
	Δ,	ressure Hea	יד					
Date	Depth : 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1.480m	z= 1.130m	nn/day	mm/day			
	J	1	1	1	-		***	
2		1	1	1				
က	- 3.536	- 1.360	- 1.224	l l		1.36	-	
4	- 3.672	- 1.496	- 1.224			1, 49	4	
5	_	_	ľ	1		1,44	+ 5	
9	- 4.080	- 1.632	- 1.224			1.51	+ 5	
<u></u>	- 4.080	- 1.632	- 1.224	1		1		
8	1	1		1	1	1	1	
တ		1		1		1.34	+ 5	
1 1	- 3.944	- 1.768	- 1, 224	1		1.44	+ 5	
	- 1.904	- 0.680	- 0.952	28.3		1, 50	¢5	
12	- 2,856	- 1.088	- 1.088			1.51	4 2	
13	- 3.944	- 1,360	- 1.224			1, 51	0	
- 1	- 4.080	- 1.632	- 1, 224				1	
1	ı		-				1	
1.6	1			Ī		-		
[	1					1.32	+ 2	
	- 1.632	- 0.816	- 1.088	28.7		1. 44	+	
	이		- 0.952	22. 7		1.48	0	
7,0	- 1	- 0.544	- 0.952	6.5		1.50	0	
•	- 1.224	- 0.580		-		_	1	
			i	!		1	1	-
- 1	1		1			1.38	0	
- 1	- 1.768	1				1.50	<b>.</b> →I	
- 1	- 3.808	- 1.496	- 1.224	1		1.53	-	
- 1	~i	- 1.632	- 1.360	•		1.40	1	
	- 1.088	- 0.680	- 1.088	23. 4		1		
- 1		]	1	1		-		
	1			1		1		
- 1	1			_			1	
- 1		1		_			1	
							1	

Note: + with the subsidence figures means swelling

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location C

Location

		Pressure He	8 d					
Date	Depth : 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	Z= 1.03UB	Z= 1.480m	z= 1.130m	mm/day	nn/day		at location B	
,-							=======================================	
-100		ŀ	1	1		1		
70		1	1	1		-		
0	- U.13b	- 0.204	0.00			1	1	
4	0.00	0.00	0.00	1				
ည	0.00	0.00	0.00	-			0	
ا م			1	-		ı	ı	
	0.00	0.00	0.00	1		J	0	
χ	1 3	1	1	ı		ļ	ı	
	0.00	0.00	0.00	1		1	0	
	0.00	0.00	0.00	1		1	+	
	0.00	0.00	0.00	1		ı	+ 5	
77	0.00	0.00	0.00	1		1, 61	+10	
	0.00	0.00	0.00	1		1, 55	+15	
-1 r	0.00	0.00	0.00			1.47	+13	
	1	1	1	1		: 1	1	
ا ا	0.00	0.00	0.00	1		1, 56	+15	
- 0	0.00	0.00	0.00	1		1.62	+20	
χ) (X	0.00	0.00	0.00	1		1.64	+21	
D) (0	0.00	0.00	0.00			1.66	+23	
7 0	0.00	0.00	00.00	1		1.65	+24	
100			1				ı	
700		1 0		-			1	
0 0	0.00	0.00	6. G	1		1.69	+26	
710	0,00	0.00	0, 00	ı		1.69	+22	
00	0, 00	0.00	0. 00	1		1, 70	+28	
010	]	!	1	1		-	1.	
~ 0	ŀ	-	1	1			1	
000		-	-	1		ı		
200		1	1	1				
ادر	-	1	-	i		1		
_ _						_		

Note: + with the subsidence figures means swelling.

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage 4-28 Table

Location C

ø		Remarks		 pumping													pumping	pumbing	purdmnd	pumping	pumping			pumping	pumping	Surdund	guidmnd	pumping	pumping		pumping	Buidmnd		
Ground Surface Level : z=1.730m		Subsidence	at location B	+30	<u> </u>	1					- L	7 +	- + <b>4</b>	+ 55	4	2+	+10		+15			+20	+20	+20						+20	+20	+20	-17	_
Ground Surfa		Canal Stage		1.73	0.81	1					1.32	1.42	1.55	1.58	1	1.61	1.61	1. 49	1.30	1.16	1.01	0.98	1.05	1.08	0.89	1.18	0.87	0.88	1.15	i	1.21	1.06	0, 93	ı
		Evaporation	mn/day																															
	·	Precipitation	mm/day	1	0	1	1	-		-	1	19.8	44.5	6 :i	-	0.7	0	0	0	0	0.1	0	3.0	3.5	3.1	117.0	9.6	27.5	115.0	0	1.0	0	2.0	
	þ	Depth : 60cm	z= 1.130m	00.00	0.00	***************************************	1	-	1	]	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	- 0.408	0.00	0.00	- 0.136	- 0.136	0.00	0.00	0.00	0:00	0.00	0.00	0, 00	0.00		0.00	_
iber '92	essure Hea	Depth : 25cm	Z= 1.480m	0.00	0.00	-	-		1		0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	- 0.136	- 0.272	- 0.272	- 0.408	- 0.272	- 0.272	0.00	0.00	0, 00	0.00	0,00	0.00	0.00	- 0.272	1
Bacho Swamp Test Plot, December	Pr	Depth : 10cm	z= 1.630m	0.00	0, 00	-	1	ŀ	1	1	0.00	0.00	0.00	0.00	1	0.00	0.00	0.00	0.00	- 0.136	- 0.136	- 0.272	- 0.408	- 0.136	- 0.136	0.00	0.00	0.00	0.00	0.00	0.00	- 0.136	- 0.136	
Bacho Swam		Date		m	2	3	4	ധ	9		∞	6	1.0	1.1	1.2	13	14	1 22	1 8	1.7			2 0											

Note: + with the subsidence figures means swelling.

Table

Tensioneter Head Variation in Relation to Precipitation, Evaporation and the Canal Stage

Location C

	Д	ressure Hea	ପ					
Date	Depth: 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1.480m	z= 1.130m	mm/day	mn/day		at location B	
							血血	
-10				1		1	1	
.2	-	ı	-	1	-	1	1	
က	1	ŀ	1	1			1	
4		- 0.272	0.00	2.6			190	nimning
ហេ		- 0.272	00.0			1 12	+50	on jumps
9	- 0.408	- 0.272	0, 00	0		1.16	150	DITENT DO
<u>-</u>	- 0.408	- 0.272	00.00	0		1.18	+22	ounding
$\infty$	- 0.544	- 0.272	0.00	0.4		1. 20	+22	puidand
on (	- 0.408	- 0.136	- 0.136			1.38	+25	0
اً ا	- 1	- 0.136	- 0.136	1.7		1.26	-	
		0.00	0, 00	0		1. 26	+22	pumping
Ŋ		0.00	0.00	0		1.27	+23	guidmnd
יין		0.00	0.00	3. 7	:	1. 29	+23	pumping
4, n		0.00	0.00	4. 7		1.30	+25	pumping
مار	0.130	0.00	0.00	0		1, 32	+25	pumping
10	- 1	1	1	0		1.32	+26	pumping
	0.130	000	1 8	2.0	;	1.30	+30	pumping
		0, 00	0.00			1.32	+25	guidmnd
	0.100	0.00	0.00	9.7		0. 30		pumping
		7,212	0.00	J. 0		0.82	+18.5	pumping
		0.400	0.00			0. 70	+14	Surdund
		0.400	0.00	0		0.76	+14	Buidmnd
	•	0.400		7)		0.81	+10	guidmnd
	히	20.0		0		0.85	+10	pumping
	- 1	- U. 344		0		0.82	+15	pumping
	- 0.68	- 0.408	0. 90	0		0.90	+15	pumping
	l	<u></u>	1					
		-		1		-		
	- [	- 1	- 0.136	71.5		1.06	+15	purcuna
) r	- 0.136	- 0.136		62		1, 10	-10	2000
							<b>^</b> T⊥	Surdand

Note: + with the subsidence figures means swelling.

Tensioneter Head Variation in Relation to Precipitation, Evaporation and the Canal Stage

Location C

Ground Surface Level : z=1,730m

Bacho Swamp Test Plot, February 793

														_													٠,						
	Remarks				pumping	pumping		pumping				guidmnd	pumping	pumping	pumping			guidmnd	pumping	pumping	pumping				pumping								
	Subsidence	at location B	EL EL	+ +	+20	+30	+30	+30	1		+36	+40	+35	+30	+25			+25	+23	+20	+18	1		1	+18	+16	+17	+18	+16				
	Canal Stage	r .	-	1, 29	1.39	1.39	1.39	1.48	1	ľ	1.53	1.57	1.405	1, 26	1.15		1	1. 22	1.06	0.99	0.835	0.75	ı	1	0.96	0.815	0.88	0.935	0.99	1			
	Evaporation	mn/day		-				:																									-
	Precipitation	mm/day		0	13.0	2.4	0	0		. 1	0	0	0	0	9,0	-	1	0	0	0	0	.0	-		. 0	0	0	1.1	0	_	1		
ਹ	Depth : 60cm	z = 1.130m			0.00									0.00		_	-	0.00		0.00	0.00	0.00			$\sim$		0.00	-	0.00		1		
ressure Hea	Depth : 25cm	z= 1.480m		0.00	0.00	0.00	- 0.136	- 0.00	_	_	0.00	0.00	0.00	0.00	0.00		_	0, 00	- 0.272	- 0.272	- 0.408	- 0.408		.1	- 0.68	- 0.816	- 0,816	- 0.952	- 0.952	-			
Ē.	Depth : 10cm	z= 1.630m		0.00	0.00	00.00	- 0.136	- 0.136	-	1	0.00	0.00	00.00	0 00	00.00	-			- 0.408	- 0.544	- 0.816	- 0.952	1	1	- 2.312		- 3.40	- 3.944	- 3.672				
	Date			1	2	ო	4	വ	မ	7	œ	6	1 0	1 1	1.2	13	1.4	1 2	16	1 7	- 1	- 1	2 0	- 1		- 1	2 4	- 1	- 1		- 1	- 1	r r

Note: + with the subsidence figures means swelling.

4-31 Table

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location c

Bacho Swamp Test Plot, March '93

acho Swa	acho Swamp Test Plot, March '93	rch '93				Ground Surface	Ground Surface Level : z=1.730m	
		Pressure Hea	p					
Date	Depth : 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1.480m	z= 1.130m	nm/day	nn/day		日日	
	· .	-		-				
	- 3.536	- 0.680	0	7		0 01		
2	- 4.488	- 0.680	0	1		XX (	0 1 1	
က	4.352	- 0.680	0			1 91	14 1	
4	- 4.760	- 0.952	0			1.21	ו	
വ	- 4.896	- 0:952	0			10.7	کا د ا	
9						2017	2	
<sub>∞</sub>	- 1.360	- 0, 408	0	12. 9		1 29	<i>L</i> -	
6	- 3.400 -	- 0.952	0			1 90	- 14	
10	- 4.080	- 1.088	0			1.40	2 6	
1	- 5,032	- 1.224	0	5		1 50	o	
1.2	- 3.944	- 0, 272	0	18.7		1 98	6 +	
13		1	ı	1		2		
14			1					
ا ت	0	0	0	154.3			10	
1.6	0	0	0	13.8		1 05	) ×	
-				> .>=		7.00	2	

Note : + with the subsidence figures means swelling.

5.1

- 0.136 - 0.136

-0.136

4-32 Table

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location c

Bacho Swamp	np Test Plot, April	1 93				Ground Surface	Ground Surface Level : z=1.730m	
	A.	ressure Hea	p					
Date	Depth: 10cm	Depth : 25cm	Depth: 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z = 1.480m	z = 1.130m	mm/day	mm/day			
ᅱ	- 0.408	- 0.408	0.0	0.0		1.00	+20	
2	- 0.408	- 0.408	0.0	0.0		1.13	+18	
ന	J	ı	1					
4	F		[	1				
5	- 1,768	- 0.544	0.0	0		1.12	+18	
. 9	- 1.632	- 0.408	0.0	0		1.11	+18	
2	- 2.176	- 0.680	0.0	0			+18	
∞	- 3.536	- 0.816	0.0	0			+20	
6	- 3.264	- 0.680	0.0	0		1.00	617	
10	_	-	_	ı		ì		
11	1		1	ŀ		Î	1	
1.2	0	0	0	0		0.88	+22	
1 3	0	0	0	i.				
1.4	0	0	0	1				
1.5	0	0	0	46		0.52	+43	
	0	0	0	50, 5		0.46	+46	
- 1	1	1		-		1		
- 1	1	1						
	0	0	0	5.0		0.53	+48	
	0	0	0	0		0.58	+40	
- 1	0	0	0	0		0.79	+39	
1	0	0	0	0		0, 83	+28	
	- 0.136	- 0, 136	0	0		1.16	+25	
	ı		_	1		1		
	1	1	1	1		1	1	
	- 0.816	- 0.544	0	0		1, 39	+16	
- 1	- 1.088	- 0.816	0	0		1.43	+10	
	- 1.768	- 0.816	0	0		1.35	+10	
	- 2,448	- 0.952	0	0		1.51	+10	
0	- 2.720	- 1.224	0	0	-	1, 40	6+	

Note : + with the subsidence figures means swelling.

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location c

Bacho Swa	Swamp Test Plot, May	°93				Ground Surface Level : z=1,730m	evel : z=1.730m	
	đ.	ressure Hear	d d					
Date	Depth : 10cm	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1.480m	z= 1.130m	mm/day	nn/day			
-								
10				1				
7 00	- 5 029	0 0 0 2	0 0			5		
ס	1 7 168	4:040	0.0			1.36	<u></u>	
<b>,</b>	1		0.0			1. 48	45	
2 (2	786 E 1	- 9 176	l c	1		1.44	5	
> _		i c				10.1	C+	
- α	- 1	i	0.0			1	1	
o				1			1	
ה כ ר		ا	1 2	1		1.34	+5	
), 		١i٠	0,0			1.44	+2	
	- 0.544	- 0.544	0.0	28, 3		1.50	+3	
1.2	- 0.680	- 1.088	0.0	1	-	1.51	+2	
က	- 3,536	- 1.632	0.0	-		1.51	0	
1.4	- 4.080	- 2, 176	0.0			1		
1 2	1			-				
- 1	-	_	1	l		1	I	
		_	F	1		1.32	5.+	
18	- 0.272	- 0.952	0.0	26.7		1.44	1+	
		0	Ç	22. 7		1.48	0	
	이		0.0	6, 5		1.50	0	
		- 0.544	0.0	·		1	]	
	1	l	ı			1		
	۱   ۱	1				1.38	0	
	- 1	1  ,				1.50	1-1	
	20	-i a	0.0	1		1.53	1	
		2.040	0.0			1.40	1	
	272.0 -	- 0.952	0.0	23, 4	-			
				-				
				1		1	ı	
						1		
		₩1. 1.	subsidence	res means swelling		-		
		- with t	the subsidence figu	figures means subsidence.	, S			

Tensiometer Head Variation with Time in Relation to Precipitation. Evaporation and the Canal Stage 4-34 Table

A	
ocation	
H	

Bacho Swamp Test Plot, November '92

Ground Surface Level : z=1,730m

				,	Ţ						<b>7</b>		,		:	:										:	-				:			-
	Remarks																																	
	Subsidence	at location B	Ħ	ı	•		ı	0	1	0		0	+	+	+10	+15	+13		+15	+20	+21	+23	+24	1	1	+26	+22	+28	1		ı	1		
	Canal Stage			-	1		1		ļ	-1	1		1		1.61	1.55	1.47	ı	1.56	1.62	1.64	1.66	1.65	1	1	1.69	1.69	1, 70				1	1	
	Evaporation	mn/day							-																									
	Precipitation	mm/dey		1	1		ı	1	1	1	1	1	1		1		1	1			1	_	1	-	1	1	1	1	1	1			ı	1
ත ස	Depth : 60cm	z= 1.130m				- 0.952	- 0.816	- 0.816	_	- 0, 408	1	- 0.408	- 0.408	- 0.408	0, 00	- 0.408	- 0.408		- 0.136	0.00	0.00	0.00	0.00	1	1	00.00	0.00	0.00	-		1	ı	1	
Pressure He	Depth : 25cm	z= 1.480m		ı		- 0.408	0.00	- 0.136	i	0.00	1	0.00	- 0.136	- 0.136	0.00	- 0.136	- 0, 136	_	0, 00	0.00	0.00	0.00	0.00	****	1	0.00	0.00	0.00		1	_	_	1	
·	Depth : 10cm	z= 1.630m		ľ		0.00	0.00	0.00	1	0.00	!	0.00	0.00	0.00	0.00	0.00	0.00	ı	0.00	000	0.00	0.00	0.00	1	1	0.00	0.00	0.00			1	1	-	
_	Date				2	က	4	ស	9	7	8	 თ	1 0	r-1	1 2	13	14	1 5	16	1.7	- L	500	0,70	1 7	7.7	22	2 4	2 2	9 2	2.7	2 8 2	5 9	0 8	31

Note: + with subsidence figures means swelling.

Tensioneter Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location D

Bacho Swamp Test Plot, December '92

Depth: 10cm	rressure Rea	~		:			
	Depth : 25cm	Depth : 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
z= 1.630m	z= 1.480m	z= 1.130m	mm/day	mm/day		at location B	
0.00	0.00	0.00	-		1, 73	+30	pumping
0.00	0.00	- 0.816	0		0.81	L +	Out Jack
		1			1		
		ı			ı		
1	Į.	1	1		1	1	
1	ţ	1	1			1	
1			1				
0.00	0.00	- 0.408	0		1.32	+ 3	
0.00	0.00	7	19.8		1. 42	+ 4	
0.00	0.00		44.5		7.55	+ 4	-
0.00	0.00	- 0.136	1.9		1.58	+	
	i		1		1	11	
0.00	0.00	- 0.272	0.7		1.61	<i>t</i> + <i>t</i>	
000	0.00	- 0.272	0		1, 61	+10	pumping
00		)	0		1. 49	+12	pumping
00.00		ာ်ကြ	0		1.30	+15	pumping
00.00		하			1.16	+13	guidand
217		<u>ا</u> د	0.1		1.01	+20	guidmnd
207 C	0.044	ik			0.98	+20	
979	0,00	0.010	0.0		1.05	+20	
0.2.2		عإد	0,7		1.08	+20	pumping
00 0		-  <	1 0 1		0, 00	+20	pumping
00 0		ءاد			1. 38	+20	pumping
00.0		غإد	0,0		0.97	+15	pumping
00.00	0.00	0.00	27.3		0.88	+15	pumbing
00.00	0.00		113.0		1. 15	+20	pumping
00.00	0.00	0.00	→ ·		1	+20	
0.36		10.00	) 		1. 21	+20	pumping
0.408	- 0 408	318 0 1	0 6		1.06	+20	pumping
			6.0			-1-	

Note: + with subsidence figures means swelling,

Tensiometer Head Variation in Relation to precipitation, Evaporation and the Canal Stage

Location D

į			:	T	Π		Г		Г				_	<u> </u>		-		П		Γ	<u> </u>		·   • • • •	· 1			<u> </u>	[	<u> </u>		F			$\Box$
<u>п</u> (		Remarks					guidand	guidand	pumping	pumping	guidand			pumping	pumping	guidmnd	Buidmnd	guidand	pumping	guidand	pumping	pumping	pumping	pumping	guidmnd	pumping	pumping	guidmnd	guidmnd			pumping	pumping	guidand
ce Level : z=1,730m		Subsidence	ar locarion a	: 			+20	+20	+20	+22	+22	+25	_	+22	+23	+23	+25	+25	+26	+30	+25	+20	+18.5	+]4	+14	+10	+10	+15	+15	1	-	+15	+10	+13
Ground Surface Level		Canal Stage		1		-	ŀ	1.12	1.16	1.18	1. 20	1.38	1. 26	1, 26	1.27	1.29	1.30	1.32	1.32	1.30	1.32	0.30	0.82	0.70	0.76	0.81	0, 85	0.82	06.0	-		1.06	1.10	1. 20
		Evaporation	מנה/ המיא					-																										
		Precipitation	##/ a & y	-		1	2.6	0.5	0	0	0.4	0	1.7	0		3. 7	<u> </u>	0	0	2.0		2.6	-	0	0	0	0	0	0	1			2, 2	1.0
	q		mnor: z		ı	1	- 0.68	- 0.68	- 0.544	- 0.544	- 0.544	- 0.544	- 0.544	- 0.544	- 0.544	- 0.544	- 0.544	- 0.408	- 0, 408	- 0.408	- 0.408	- 0.68	- 0.816	- 0.816	- 0.952	- 1,688	- 1.688	- 0.952	- 0.952	ı		- 0.68	- 0.816	• •
lary '93	ressure Hea	Depth : 25cm	Z= 1.460⊞	1	1	-	- 0.68	- 0.68	- 0.68	- 0.68	- 0.68	- 0.544	- 0.68	- 0.408		- 0.272	- 0.272	- 0.272	- 0.272	-0.272	•	- 0.408	- 0.544		-1	1	- 0.816	-0.816	- 0.952			- 0.272		- 0.408
Swamp Test Plot, January	ď	Depth : 10cm	Z= 1.03UE			•	- 0.68	- 0.544	- 0.68	- 0.544	- 0.408	- 0.408	- 0.816	- 0.272	- 0.544	0.00	- 0.136	- 0.136	- 0.272	- 0.136	- 0.136	- 0.136	- 0.544	- 0.68	- 0.816	∞	- 0.816	- 0.68	- 0.272	-		- 0.136		- 0.136
Bacho Swal		Date			103	ന	4	r.	တ	-1	∞	6	10	11	1.2	ლ  -	1.4	ا ت	1.6	<u></u> 1	18		1.0		- 1				1 1			2 9		

Note: + with subsidence figures means swelling.

Tensioneter Head Variation in Relation to precipitation. Evaporation and the Canal Stage

Location D

	<del></del>			Υ	1	1	L	r — ,		·····	<b>.</b>						,	1		·						-	· .	,	,				 
730m		Remarks			guidand	pumping		pumping				pumping	pumping	Dumping	pumping			Dumping	Dumping	Dumping	Dumoing				Suidmod								
Ground Surface Level : z=1.730m		Subsidence	日日日	+15	+20	+30	+30	+30	1	1	+36	+40	+35	+30	+25			+25	+23	+20	+18		1	1	+18	+16	+17	+18	+16		1		
Ground Sur		Canal Stage		1.29	1, 39	1.39	1, 39	1. 48	-	1	1.53	1.57	1, 405	1, 26	1, 15	1		1.22	1.06	0.99	0.835	0.75	1	1	0.96	0.815	0.88	0.935	0, 99		1		
		Evaporation mm/dav																															
		Precipitation mm/day	•	0	13.0	2. 4	0	0		1	0	0	0		0.6		1	0	0	0	0	0	-		0	0	0	1.1	0	1	_		
	q	Depth : 60cm z= 1.130m		- 0.544	- 0.408	- 0.408	- 0.272	- 0.272			- 0.136	- 0.272		- 0.476	- 0, 544			- 0.544	- 0.68	- 0: 68	- 0,816	-0.816	1	1	- 0.68	낆	- 0.816	- 0.816	- 0.952				
uary 193	ressure Head	Depth : 25cm z= 1.480m		- 0.408	- 0.272	- 0.272	- 0.272	- 0.136	-	1 6	=	- 0.00	- 0.136	- 0.272	- 0.272	-	1	- 0.272	- 0.544	- 0,544	- 0.68	- 0.68	1	1	- 1.088	- 1.224	− 1.36	- 1.632	- 1.632				
Bacho Swamp Test Plot, February	P	Depth : 10cm z= 1.630m		- 0.136	0,00	- 0.136	0.00	- 0.136	!		- 0.00	- 0.00	- 0.00	- 0:00	- 0.136		-	- 0.136	- 0.544	- 0.544	- 0.816	- 0.68	1		- 0.68	- 0.952	- 1.224	- 2.04	- 1:768		1		
Bacho Swan		Date		<b>-</b> -1	2	က	7	C (	10		χ	סס	10	r-1	1 2	13	1.4		16	17												5 9	

Note: + with subsidence figures means swelling.

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location D

Locati

Bacho Swamp	ıp Test Plot, March	h '93				Ground Surface	Ground Surface Level : z=1,730m	
		Pressure He	ad					
Date	Depth : 10cm	Depth : 25cm	Depth: 60cm	Precipitation	Evaporation	Canal Stage	Subsidence	Remarks
	z= 1.630m	z= 1.480m	z= 1.130m	mm/day	mn/day		at location B	
							a u	
Ţ	- 0.680	- 1,768	- 0.680	4		0.91	-10	
2	- 1.360	- 1.904	- 0,680			0.88	-11	
က	- 0.952	- 2.040	- 0.680	-		1.21	9 -	
4	- 1,360	- 2.312		1		1.31	ı. I	
വ	- 1.496	- 2,516	- 0.952	1		1. 24	l S	
9	- 1	1	1	1		1	1	
7	-	E I	_	1		1	1	
∞	- 1.224	- 1.768	- 0.952	12.9		1.32	2 -	
6	- 1.360	- 2.312	- 0.952	ı		1. 29	- 5	
1.0	- 2.040	- 2, 584	- 1.088	ı		1.40	က	
11	-2.312	- 2.856	- 1.224	1.5	-	1.50	+	
1.2	- 0.272	1.904	- 0.952	18.7		1.96	- 2	
13	Į.	1		ŀ		-	l	
14	1		1	1		j	1	
15	0	- 0, 408	- 0.680	154.3		1.01	-10	
16		- 0.272	- 0.680	13.8		1, 05	. 8	-
1.1	- 0.136	1				1.12		
	0	- 0.408	- 0.680	5.1		1.16	9 -	
	0	- 0.272		31.7		0.90		
2 0								
						,		
			-			·		
					:			
3.0								
			4					

Note: + with subsidence figures means swelling,

4-39 Table

Tensiometer Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location

Bacho Swa	Bacho Swamp Test Plot, April '93	11 '93				Ground Surface	Ground Surface Level : z=1.730m	
		Pressure He	Неас					
Date	Depth : 10cm z= 1.630m	Depth : 25cm z= 1.480m	Depth : 60cm z= 1.130m	Precipitation mm/day	Evaporation mm/day	Canal Stage	Subsidence at location B	Remarks
							HB	
p=-{	- 0.544	- 0.544	0.680	0'0		1.00	+20	
2	- 0.408	- 0.680	- 0.816	0.0		1 13	+18	
ന	1	1						
4	J							
വ	- 1,088	- 0,816	- 0.816	0		1 12	+18	
9	- 0.952	- 0.816	- 0.952	0			+18	
7	- 0.816	0.680	- 0.816	0			+18	
8	- 1.768	- 1.496	- 0.816	0			+20	
·6	- 1,496	- 1.224	- 0.680	0		1.00	+19	

Note: + with subsidence figures means swelling.

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1. 39 1. 35 1. 51 1. 40

- 0.816 - 0.952 - 1.088 - 0.816 - 1.224

- 0.544 - 0.952 - 0.816 - 1.088 - 1.292

 $\begin{array}{c} -0.680 \\ -0.816 \\ -0.952 \\ -1.292 \\ -1.360 \end{array}$ 

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4-40 Table , 93

Bacho Swamp Test Plot, May

Tensioneter Head Variation with Time in Relation to Precipitation, Evaporation and the Canal Stage

Location

Ground Surface Level : z=1.730m

Remarks at location B Subsidence + + \co + 5 O I 1 ŀ 1 Canal Stage 1.34 1.44 1.50 1.51 1.44 1.53 1.51 1.32 1.50 1.51 l ŧ l l I 1 Evaporation mn/day Precipitation mm/day 26.7 22.7 6.5 23. 4 28.3 1 1 1 i 1 1 1 1 1 1 1 1 ı 1 į Depth: 60cm z = 1.130m- 0,816 - 0,952 - 1.768 - 1.088 - 1.496 - 1.496 - 1. 632 - 0. 952 - 1. 224 - 1. 360 - 1. 496 - 1,088 - 1,496  $\frac{-1.360}{-1.360}$ -1.088T 1 i 1 ] Head Depth : 25cm z= 1.480m - 1, 292 - 1, 360 - 0, 544 - 0.408 - 0.408 - 1.768 - 2.312  $\frac{-3.944}{-0.952}$ -0.680- 0, 544 - 2.992 -2.040-2.856-2.040Pressure ł 1 1 1 ī Depth: 10cm z = 1.630 m- 1.904 - 1.088 - 1.292  $\frac{-1.360}{-0.272}$ - 2.584 - 2.584 0.1360.1362.176 2.448 - 2.448 1 1 Į ı 1 I ŧ Date  $4|\omega|\omega$ Ø 0000 Ø 0

Note: + with the subsidence figures means swelling. - with the subsidence means subsidence.

## APPENDIX K. COST ESTIMATE

## APPENDIX K. COST ESTIMATE

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K-1 Project Cost

Table K-1 Project Cost of Bacho Area

							¥ ;	·					: :	Unit : 1,000 Baht	300 Bant
Description	(1st	(1st Year)	(2nd Year)	(ear)	(3rd	(3rd Year)	(4th Year)	(ear)	(5th Y	5th Year)	(6th Year)	(ear)		Total	
	F.C.	г.с.	F.C.	L.C.	F.C.	r.c.	F.C.	r.c.	F.C.	L.C.	F.C.	L.C.	F.C.	L.C.	Total
Bacho F/S Area															
1. Construction Cost															
- Land Reclamation			1,286	1,487	2,144	2,479	857	166					4,287	4,957	9,244
- Agricultural Infrastructure			2,510	8,549	4,184	14,249	1,674	5,699		:			8,368	28,497	36,865
- Agricultural Supporting Facility			8,440										8,440		8,440
Sub Total			12,236	10,036	6,328	16,728	2,531	6,690					21,095	33,454	54,549
2. Project Administration	936	630	39	630	39	630	38	630					1,052	2,520	3,572
3. Consulting Services															
- Detailed Design	2,995						•						2,995		2,995
- Supervision			1,498		1,498		1,498	-					4,494		4,494
Sub Total	2,995	:	1,498		1,498		1,498						7,489		7,489
4. Agricultural Supporting Activity					4,031	162	4,031	162	4,031	162	4,032	162	16,125	648	16,773
Total (1-4)	3,931	630	13,773	10,666	11,896	17,520	8,098	7,482	4,031	162	4,032	162	45,761	36,622	82,383
5. Physical Contingency $(1-4)\times10\%$	393	63	1,377	1,067	1,190	1,752	810	748	403	9	403	16	4,576	3,662	8,238
Total (1-5)	4,324	693	15,150	11,733	13,086	19,272	8,908	8,230	4,434	178	4,435	178	50,337	40,284	90,621
6. Price Escalation	43	35	305	1,203	397	3,038	362	1,774	226	49	273	61	1,606	6,160	7,766
Grand Total	4,367	728	15,455	12,936	13,483	22,310	9,270	10,004	4,660	227	4,708	239	51,943	46,444	98,387

Table K-2 Project Cost of Kab Daeng Area

	Total			36,669		: :	2,393		3,030	4,542	7,572	292 12,931	19 83,289	36 8,330	45 91,619	78 7,172	23 98,791
Total	L.C.			27,461	<u>:</u>	37,048	1,609						38,949	3,896	42,845	5,778	48,623
	F.C.		8 367	9,208	5,770	23,345	784		3,030	4,542	7,572	12,639	44,340	4,434	48,774	1,394	50, 168
(6th Year)	L.C.																
(6th	F.C.																
Year)	L.C.											86	86	10	108	99	138
(5th	F.C.											4,213	4,213	421	4,634	236	4,870
Year)	г.с.											26	26	01	107	23	130
(4th	F.C.	:								1,514	1,514	4,213	5,727	573	6,300	256	6,556
Year)	г.с.		5 759	16,477		22,229	536			:		97	22,862	2,286	25,148	3,964	29,112
(3rd	F.C.		7. 020	5,525		10,545	37			1,514	1,514	4,213	16,309	1,631	17,940	544	18,484
(2nd Year)	L.C.		3 835	10,984		14,819	536						15,355	1,536	16,891	1,731	18,622
(2nd	F.C.		2 247	3,683	5,770	12,800	38			1,514	1,514		14,352	1,435	15,787	317	16,104
(ear)	L.C.						537						537	54	591	30	621
(1st Year)	F.C.						709		3,030		3,030		3,739	374	4,113	41	4,154
Description		kab Daeng F/S Area	. Construction Cost	- Agricultural Infrastructure	- Agricultural Supporting Facility	Sub Total	2. Project Administration	3. Consulting Services	- Detailed Design	- Supervision	Sub Total	4. Agricultural Supporting Activity	Total (1-4)	5. Physical Contingency (1-4)×10%	Total (1-5)	6. Price Escalation	Grand Total

Table K-3 Project Cost of Muno-Koknai Area

														Unit: 1,	1,000 Baht
Description	(1st	(1st Year)	(2nd	(2nd Year)	(3rd	(3rd Year)	(4th	Year)	(5th Y	Year)	(6th	Year)		Total	
	F.C.	L.C.	F.C.	.D.L	F.C.	r.c.	F.C.	L.C.	F.C.	r.c.	F.C.	r.c.	F.C.	L.C.	Total
Muno-Koknai F/S Area															
1. Construction Cost										:					
- Land Reclamation			3,423	2,739	5,706	4,564	2,282	1,826					11,411	9,129	20,540
- Agricultural Infrastructure			3,740	13,923	6,234	23,204	2,493	9,282					12,467	46,409	58,876
- Agricultural Supporting Facility			9,010										9,010		9,010
Sub Total			16,173	16,662	11,940	27,768	4,775	11,108					32,888	55,538	88,426
2. Project Administration	920	636	39	636	39	636	38	636					1,036	2,544	3,580
1 3. Consulting Services															
·	4,354												4,354		4,354
- Supervision			2,177		2,177		2,177						6,531		6,531
Sub Total	4,354		2,177		2,177		2,177						10,885		10,885
4. Agricultural Supporting Activity					4,031	180	4,031	180	4,031	180	4,031	180	16,124	720	16,844
Total (1-4)	5,274	636	18,389	17,298	18, 187	28,584	11,021	11,924	4,031	180	4,031	180	60,933	58,802	119,735
5. Physical Contingency (1-4)×10%	527	64	1,839	1,730	1,819	2,858	1,102	1,192	403	8.1	403	18	6,093	5,880	11,973
Total (1-5)	5,801	700	20,228	19,028	20,006	31,442	12, 123	13,116	4,434	198	4,434	198	67,026	64,682	131,708
6. Price Escalation	28	35	407	1,950	909	4,956	492	2,827	226	က္က	273	29	2,062	9,890	11,952
Grand Total	5,859	735	20,635	20,978	20,612	36,398	12,615	15,943	4,660	253	4,707	265	69,088	74,572	143,660

K-2 Construction Cost of Case Study

Table K-4 Construction Cost of Bacho Area (Case 1)

							- 1					Unit : Baht
				ur and	Materials		W.	Machine Cost			Total	
Description	Unit	Quantity	Unit Cost	Cost	Amount	ınt	Depre.					-
			F.C.	L.C.	.C.	L.C.	(F.C.)	٦. د.	1.C.	F.C.	L.C.	Total
Bacho F/S Area : Case 1								-				
Tand Reclamation			i .									
Mowing	ha	225.0				-	76,725	134,550	1,048,500	211,275	1,048,500	1,259,775
Stumping	*	180.0					513,360	588,960	377,100	1,102,320	377,100	1,479,420
Stumps Exclusion	*	180.0					401,760	460,980	295,020	862,740	295,020	1,157,760
Removal of Sundries	*	225.0		4,400	•	990,000					990,000	990,000
Burning	*	225.0		2,200		495,000	1	6	0		495,000	495,000
Readjust the Land	<u> </u>	200.0		1,100		220,000	740,000	860,000	540,000	1,600,000	7,00,000	2,360,000
Sub Total						1,705,000	1,731,845	2,044,490	2,260,620	3,776,335	3,955,620	(, (41, 955
Uverhead 25%										011,160	331,400	1,306,360
lotal										4,401,400	4,301,063	3,744,400
Agricultural Infrastructure			:		٠						-	
Canal Improvement	日	7,510.0		86		738,233	118,658	125,417	83,361	244,075	821,594	1,065,669
Culvert Ø1000	*	48.0	006	952	43,200	45,696	1,200	1,248	1,536	45,648	47,232	92,880
Dike TypeIII	*	2,750.0		2,023		5,563,250	470,250	506,000	396,000	976,250	5,959,250	6,935,500
Road Improvement	*	4,300.0		209		2,610,100	219,300	236,500	184,900	455,800	2,795,000	3,250,800
Ditch 30m Pitch	ha	200.0		9,670		1,934,000	300,800	318,400	212,600	619,200	2,146,600	2,765,800
Farm Road	B	6,560.0		517		3,391,520	164,000	196,800	131,200	360,800	3,522,720	3,883,520
Intake Culvert $\phi$ 1000	place	3.0	50,040		150,120	228,174	11,574	14,736	14,562	176,430	242,736	419,166
Check Gate 4*2*2	*			85,202	1,085,612	1,185,202	14,408		22,136	1,119,493	1,207,338	2,326,831
Fishery Pond Type I	*				59,040	2,387,346	1,486,163	1,709,042	1,096,286	3,254,245	3,483,632	6,737,877
Liming	ப	6,242.0		412		2,571,704				~~~~	2,571,704	2,571,704
Sub Total					,337,972	20,655,225	2, 786, 353	3,127,616	2,142,581	******	22, 797, 806	30,049,747
Overhead 25%						:					5,699,452	6,815,849
Total	4			-						8,368,338	28,497,258	36,865,596
Grand Total				-	•					12,655,796	33, 454, 283	46,110,079
		·	<del></del>									

Table K-5 Construction Cost of Bacho Area (Case 2)

ند		Ţ					~~								·~																		
Unit : Baht	1		Total				3,460,182	4,063,474	3,179,981	2,719,200	1,359,600	6,560,800	21,343,236	4,140,442	25,483,678		3 148 936	1 241 625	232,725	68,448	15.636,400	3,288,600	7,688,924	8.850,400	838,332	2,326,831	20,213,631	7,009,768	70,544,095	15,766,200	86,310,295	440 404 11.	111, (33, 373
	Total		L.G.				2,879,880	1,035,768	810,322	2,719,200	1,359,600	2,112,800	10,917,570	2,729,392	13,646,962		2 429 844	057 250	118 080	34,824	13, 435, 400	2,827,500	5,967,548	8,028,150	485,472	1,207,338	10,450,896	7,009,768	52,952,070	13,238,018	66,190,088		1 000,100,60
			F.C.				580,302	3,027,706	2,369,659			4,448,000	10,425,667	1,411,050	11,836,717		719 092	284 275	114 120	33,624	2.201.000	461,100	1,721,376	822,250	352,860	1,119,493	9,762,735		17,592,025	2,528,182	20,120,207	21 056 024	17,300,364
			r.c.				2,879,880	1,035,768	810,322			1,501,200	6,227,170			į	247 084	07 105	3 840	1,248	892,800	187,050	591,028	299,000	29,124	22,136	3,288,858		5,659,293				
	Machine Cost		я.С.				369,564	1,617,677				2,390,800	5,644,199				270 072	146 195	3,120	984	1.140.800	239,250	885,152	448,500	29,472	19,473	5,127,126		8,410,074				
Dacilo in ca ( case 4)	۸ ·	Depre.	(F.C.)	: :			210,738	1,410,029	1,103,501			2,057,200	4,781,468				349 020	138 250	3,000	096	1,060,200	221,850	836,224	373,750	23,148	14,408	4,458,489		7,479,299				
n pacific in		Amount	L.C.		,	-		•		2,719,200	1,359,600	611,600	4,690,400				2 182 760	260 125	114 240	33,576	12.542.600	2,640,450	5,376,520	7, 729, 150	456,348	1,185,202	7,162,038	7,009,768	47,292,777			:.	
acon morana	d Materials	Amo	F.C.					-											108,000							1,085,612	177,120		1,702,652		:	7.8	
	Labour and	Cost	L.C.	:						4,400	2,200	1,100		_			197	Š			2,023	607	9,670	517		1,18	,3 8	412					
		Unit	F.C.																006	<del>-</del>			:		50,040	1,085,612							
		Quantity					618.0	494.4	494.4	618.0	618.0	226.0		-			11.080.0	8,750.0	120.0	24.0	6,200.0	4,350.0	556.0	14,950.0	0.9	1.0	3.0	17,014.0			:		
		Unit					ha	*	*	*	*	*					. 8	i ×	*	*	*	*	ha	日	place	*	*	υ					
		Description		Bacho F/S Area : Case 2		Land Reclamation	Mowing	Stumping	Stumps Exclusion	Removal of Sundries	Burning	Readjust the Land	Sub Total	Uverhead 25%	lota!	Agricultural Infrastructure	Drainage Canal Type I	Canal Improvement	Culvert Ø1000	Culvert Ø1500	Dike TypeIII	Road Improvement	Ditch 30m Pitch	Farm Road	Intake Culvert Ø1000	Check Gate 4*2*2	Fishery Pond Type I	Liming		Uverhead 25%	Iotal	Grand Total	

Table K-6 Construction Cost of Bacho Area (Case 3)

				Labour and	Materials		X	Machine Cost			Total	
Description	Unit	Quantity	Unit Cost			unt	Depre.				400	
			F.C.	L.C.	F.C.	L.C.	(F.C.)	다. 다.	L.C.	F.C.	L.C.	Total
Bacho F/S Area : Case 3					·		:					
Land Reclamation						4						i
Mowing	ha	908.7					309,867	543,403	4,234,542	853,269	4,234,542	5,087,811
Stumping	*	727.0	-				2,073,290	2,378,613	1,522,981	4,451,903	1,522,981	5,974,884
Stumps Exclusion	*	727.0					1,622,575	1,861,745	1,191,487	3,484,319	1,191,487	4,675,807
Removal of Sundries	*	908.7		4,400		3,998,280					3,998,280	3,998,280
Burning	*	908.7		2,200		1,999,140	1				1,999,140	1,999,140
Readjust the Land	<b>\</b>	800.0		1,100		880,000	2,960,000	3,440,000	2,160,000	6,400,000		9,440,000
Sub Total						6,877,420	6,965,731	8,223,760	9,109,011	15,189,492	_	31,175,922
Overhead 25%										2,055,940		6,052,548
Total										17,245,432	19,983,039	37,228,470
•												
Agricultural Infrastructure								- 1				
Drainage Canal Type I	Ħ	24,700.0		197		4,865,900	778,050	824,980	550,810	1,603,030	5,416,710	7,019,740
Canal Improvement	<u> </u>	8,750.0		86		860, 125	138,250	146, 125	97,125	284,375	957,250	1,241,625
Culvert \$1000	*	220.0	006	395	198,000	209,440	5,500	5,720	7,040	209,220	216,480	425,700
Culvert Ø1500	*	24.0	1,320	1,399	31,680	33,576	096	984	1,248	33,624	34,824	68,448
Dike TypeIII	"	18,500.0		2,023		37,425,500	3, 163, 500	3,404,000	2,664,000	6,567,500	40,089,500	46,657,000
Road Improvement	`	6,450.0		209		3,915,150	328,950	354,750	277,350	683,700	4,192,500	4,876,200
Ditch 30m Pitch	ad E	800.0		9,670	•	7,736,000	1,203,200	1,273,600	850,400	2,476,800	8,586,400	11,063,200
Farm Road	Ħ	18,100.0				9,357,700	452,500	543,000	362,000	995,500	9,719,700	10,715,200
Intake Culvert Ø1000	place	11.0	50,040		550,440	836,638	42,438	54,032	53,394	646,910	890,032	1,536,942
Check Gate 4*2*2	*	1.0	,085,612		1,085,612	1,185,202	14,408	19,473	22, 136	1,119,493	1,207,338	2,326,831
Fishery Pond Type I	*	4.0	59,040		236,160	9,549,384	5,944,652	6,836,168	4,385,144	13,016,980	13,934,528	26,951,508
Liming	ţ	25,030.0		412	•	10,312,360		-			10,312,360	10,312,360
Sub Total					2,101,892	86,286,975	12,072,408	13,462,832	9,270,647	27,637,132	95,557,622	123, 194, 754
Overhead 25%										3,891,181	23,889,406	27,780,587
Total		1				:	. :			31,528,313	119,447,028	150,975,341
· i				<del> </del>						. :		
Grand Total										48,773,745	139,430,067	188,203,811
												1