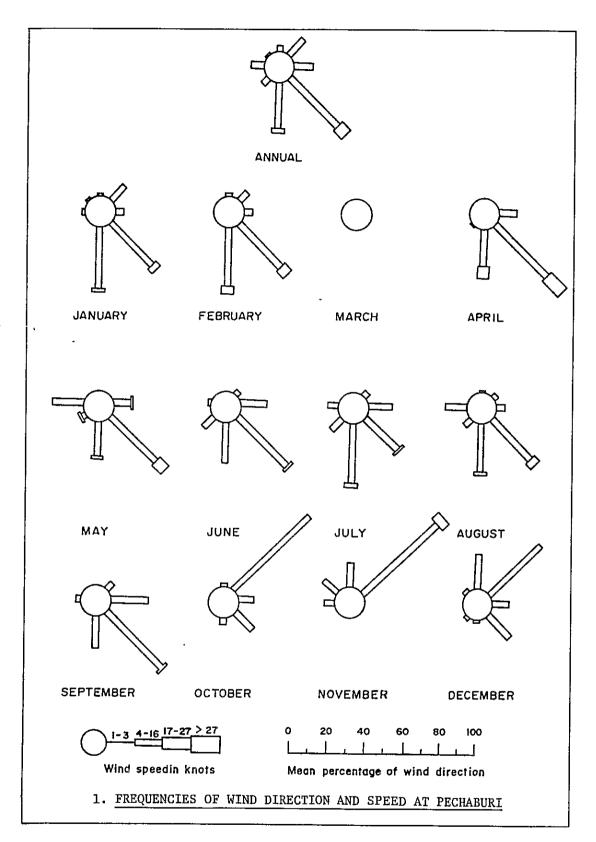
CLIMATOLOGICAL DATA FOR THE PERIOD 1951 - 1975

Station BANGKOK HETROPOLIS Index Station 48 455 Latitude 13*4* N. Longitude 100*30° E.									Elevatio Neight o Height o Height o	on of station of barometer of thermometrof wind vane of raingauge	of station above NSL, barometer above MSL, thermometer above ground wind vane above ground raingauge	it. 2.30 16.37 round 1.59 wind 23.38	10 meters 37 meters 50 meters 18 meters 70 meters
	Jan	reb	Mar	Apr	Hay	Jun	Jul	Aug	Sep	Oct	NDV	Dec	Year
Pressure (+1000 or 900 mbs.) Noan Noan Ext. Max. Ext. Hin. Hoan dally range	12,58 26,50 04,59	11.05 20.96 03.87 4.85	10.04 18.42 02.08 4.87	08.58 17.74 00.04 4.91-	06.95 13.62 99.40 4.50	06,38 13,00 97,76 3,81	06.58 14.14 98.78 3.74	06.60 13.50 99.16 1.97	07.51 15.59 98.20 4.38	09,71 16,78 98,24 4,43	11.52 19,98 03,68	12.63 21.89 03.87 4.46	09.18 26.50 97.76 4.41
Temperature (*C) Moan Mean Max. Mean Min. Ext. Max.	22 U 23 8 2 4 0 6 6	27.1 32.7 22.7 16.6	86 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	25,4 25,4 19,0 19,0 9,0	29.0 25.3 25.3 21.4	28.5 32.9 25.0 36.8	28.0 24.8 26.0 21.9	22 23 24 25 25 25 25 25 25 25 25 25 25 25 25 25	22.22 22.23 25.45 21.35	27.4 24.3 24.3 19.8	26.12 22.12 145.12 145.12	25.3 20.6 20.2 20.2	22 23.55 39.8 9.9
Relative Humidity (1) Hean Hean Hean Hax, Hean Hin. Ext. Hin.	73.0 91.8 49.5 27.0	76.0 93.4 53.5 17.0	28.50 28.50 28.50	77.0 91.9 56.6	93.8 93.8 30.0	80.0 92.9 63.4 6.0	811.0 92.9 64.4	82.0 94.4 85.2 0.0	84.0 49.7 49.0	83.0 67.7 69.0	79.0 94.1 61.2	74.0 92.2 53.5	28 20 20 20 20 20 20
Dew Point (*C)	19.7	22.0	23.7	24.5	24.9	24.4	24.0	24.1	24.4	24.1	22.4	19.9	23.2
Evaporation (ma.) Mean - Piché - Pan	98.0 132.8	68.6 139.2	108.B	105.7 182.6	90.2	81.8 145.8	18.3	71.2	58.1 126.2	59.7	69.3 118.8	87.0 123.9	995.9
Claudiness (0-8)	4.	5.0	5.2	8.	ð.	J.D	7.1	7.2	7.2	9.9	5.4	4.7	0.9
Visibility (Km.) 0700 L.S.T.	8.01 8.01	30.0	an ev	7,8	8.8 12.9	8.7 13.0	B.2	7.8 12.2	7.8 12.0	7.9	8.6 12.5	7.6	7.1
Wind (Knots) Prevailing wind Hean Wind Speed Hax. wind Speed	же 1,8 31 кий	84.Z	5.8 48 ENT	ນລິ ພະຫ	4.5 2.63	43 S, SH	SH 4.6 4.3 SH, W	8 4.6 45 MWH	54 C T T T T T T T T T T T T T T T T T T	3.5 40 NE	3.7 45 ENE	NE 3.5 31 NNE, SE	
Rainfall (mm.) Moan Rainy days Groatest in 24 hr. Day/Year	8.9 1.8 39.3	29.1 2.8 73.0	28.0 3.6 52.8 24/73	70.0 6.4 133.5 23/51	185.1 15.8 124.2 15/66	150.4 16.5 82.9 6/59	171.3 18.4 108.8 30/55	206.8 20.8 97.8 26/71	402.1 21.6 153.7 23/68	234.2 17.4 123.2 5/60	47.6 6.0 81.2 2/69	10.4 1.6 12.0 8/72	1543.9 132.7 153.7 23/68
Number of days with Haze Frog Hail Thunderstorm Squall	21.5 5.6 0.0 0.0	21.6 3.6 0.0 0.0	22.20.00.00.00.00.00.00.00.00.00.00.00.0	16 1.2 0.2 2.2 2.2	12.1 1.6 15.3 0.3 0.3	10000	40000 60000	11000	21 0 0 0 0 0 0 1 4 0 0 0 0 0 0 0 0 0 0 0 0	13.2 0.0 0.0 0.0	10000 0000 0000	84 6.10 4.00 6.00 6.00 6.00	191 181 00.1 1.8

Remark: Evaporation - Pan 1961-1975

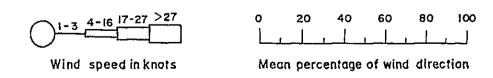


Annex 2-12 FREQUENCIES OF WIND DIRECTION AND SPEED

HUA HIN Index 48475 Lat. 12°35'N. Long. 99°57'E

Lat. 12°35'N. Long. 99°57'E Height of Windvane 13.5 M. (18.5 M. above M.S.L.)

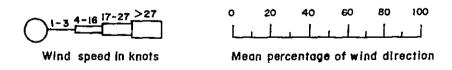
JANUARY	FEBRUARY	MARCH	APRIL
MAY	JUNE	JULY	AUGUST
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER



2. FREQUENCIES OF WIND DIRECTION AND SPEED AT HUA HIN

CHON BURI Index 48459 Lat. 13° 22'N. Long. 100° 59'E Height of Windvane 10 9 M (15.9M. above M.S.L)

,		···-	
JANUARY	FEBRUARY	MARCH	APRIL
	27		
MAY	JUNE	JULY	AUGUST
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER

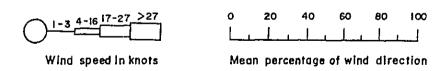


3. FREQUENCIES OF WIND DIRECTION AND SPEED AT CHON BURI

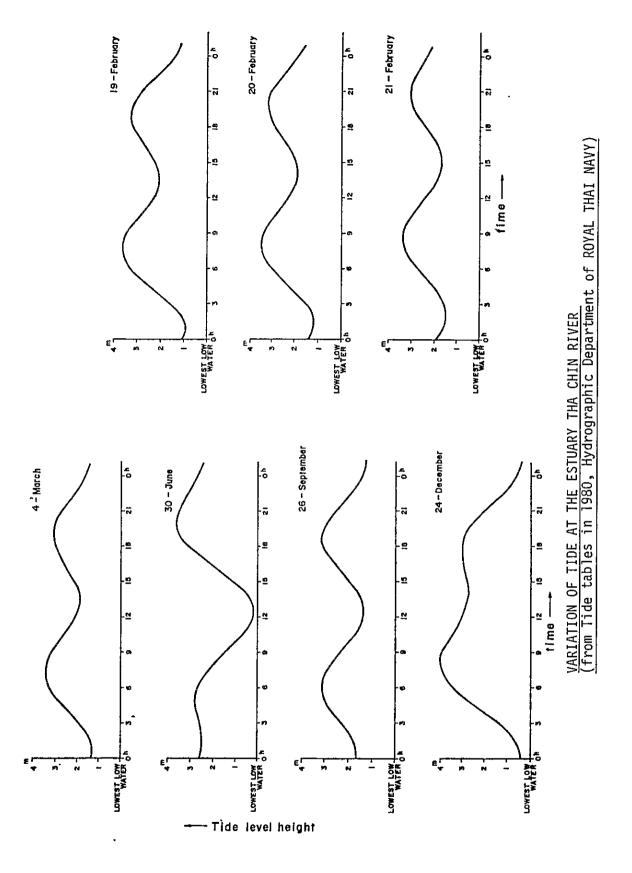
SATTAHIP Index 48477 Lat. 12°41' N. Long. 100° 59'E

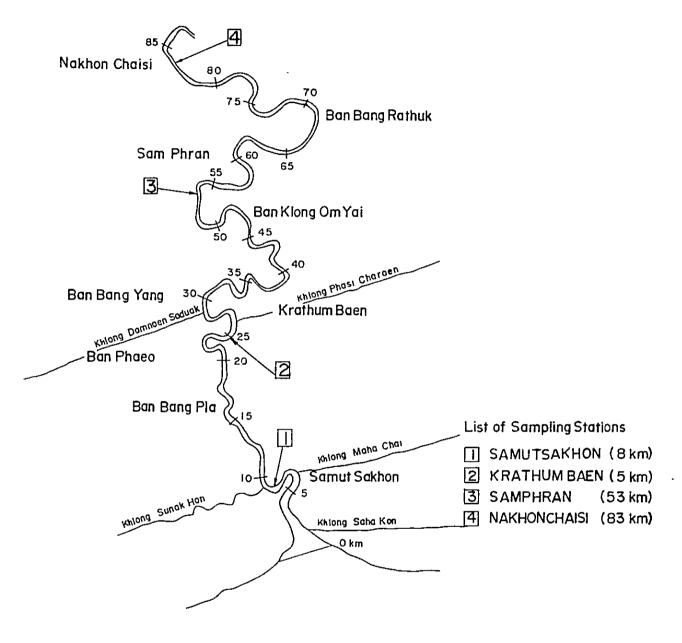
Height of Windvane 12.0 M. (30.0 M. above M.S.L.)

JANUARY	FEBRUARY	MARCH	APRIL
MAY	JUNE	JULY	AUGUST
			ED G
SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER

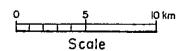


4. FREQUENCIES OF WIND DIRECTION AND SPEED AT SATTAHIP

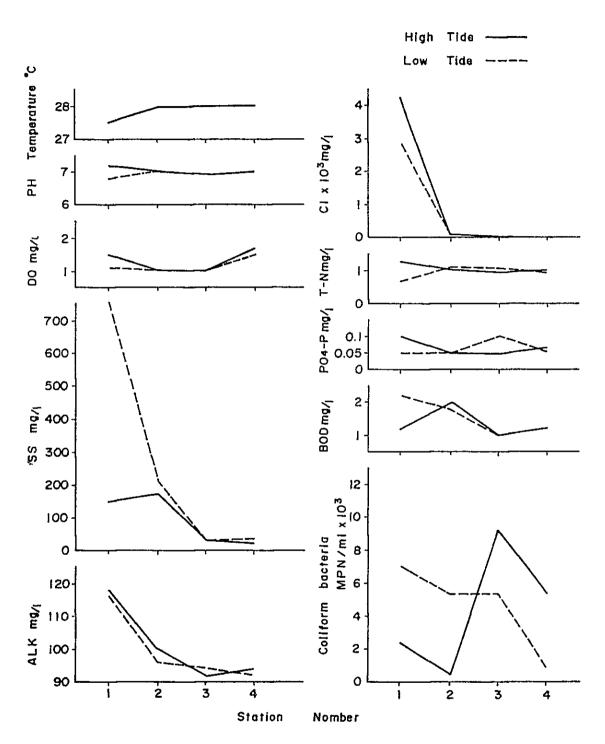




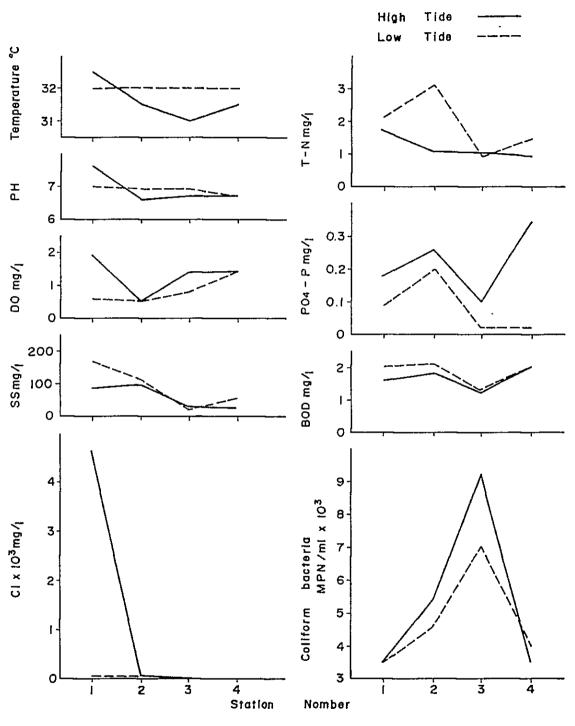
1. SAMPLING STATIONS ALONG THE THA CHIM RIVER (1979)



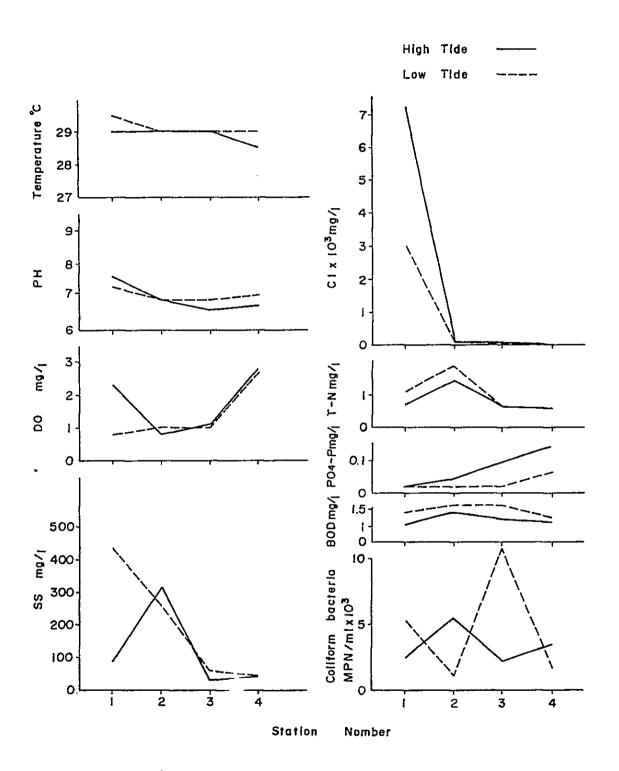
WATER QUALITY OF THE THA CHIN RIVER (1979)



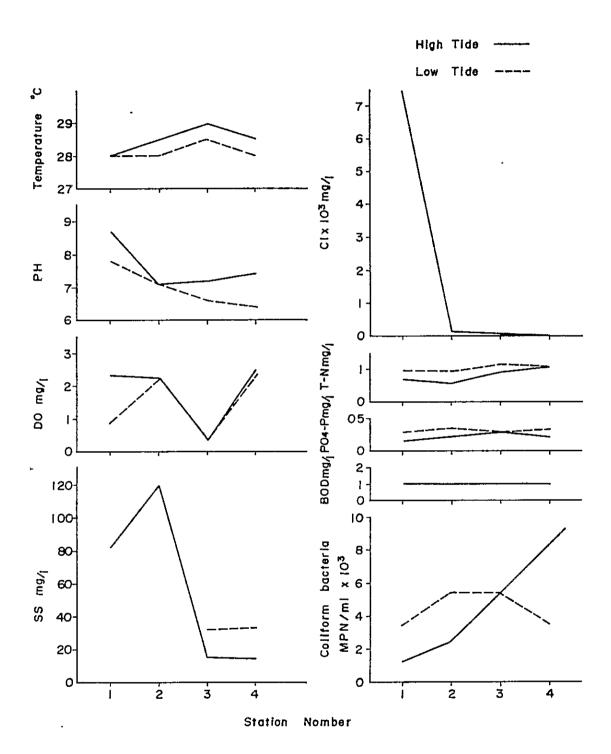
2. VARIATION OF TEMP. PH. DO. SS. ALKALINITY. Cl. T-N. PO4-P. BOD AND COLIFORM IN THA CHIN RIVER (Feb. 1, 1979)



3. VARIATION OF TEMP. PH. DO. SS. Cl. T-N. PO₄-P. BOD. AND COLIFORM IN THA CHIN RIVER (Jun. 9, 10, 1979)

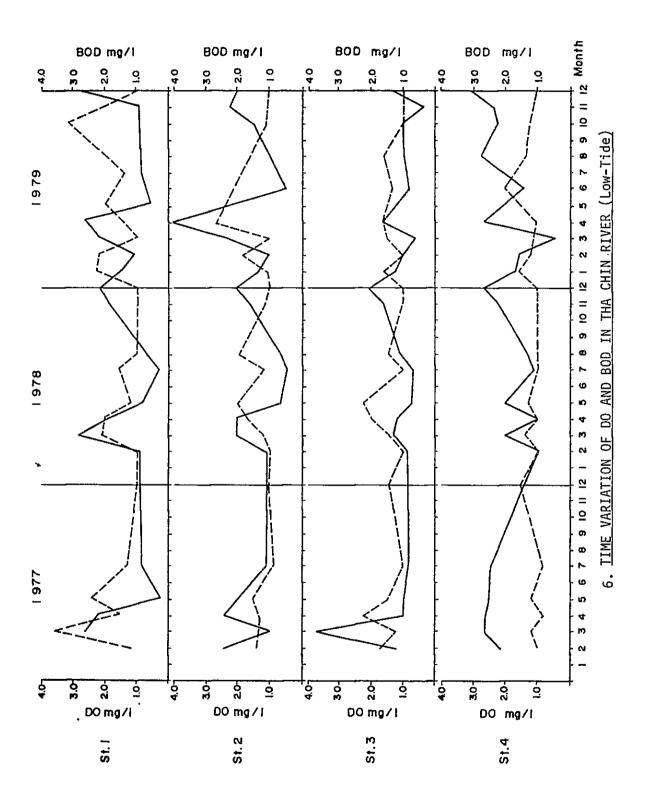


4. VARIATION OF TEMP. PH. DO. SS. C1. T-N. PO₄-P. BOD. AND COLIFORM IN THA CHIN RIVER (Aug. 12, 19, 1979)

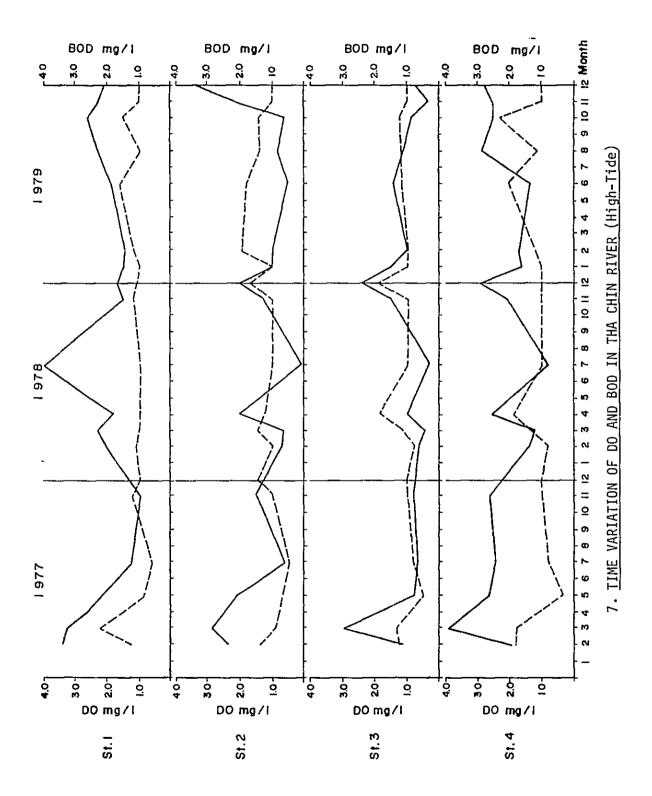


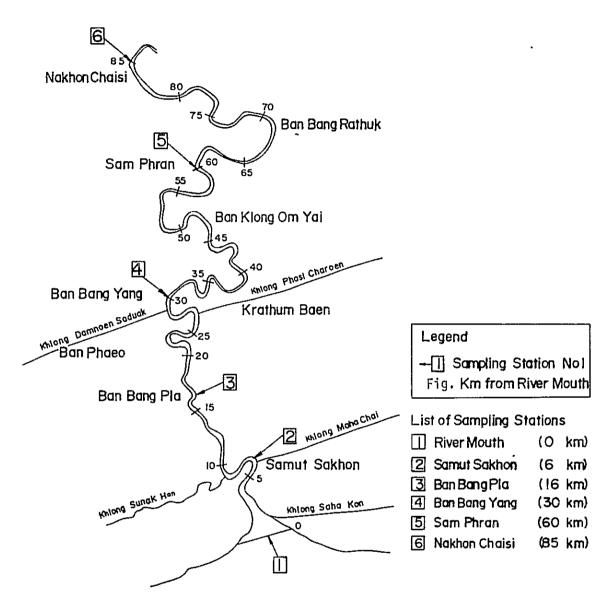
5. VARIATION OF TEMP. PH. DO. SS. Cl. T-N. PO4-P. BOD, AND COLIFORM IN THA CHIN RIVER (Nov. 8, 1979)

--- BOD

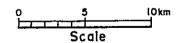


--- BOD

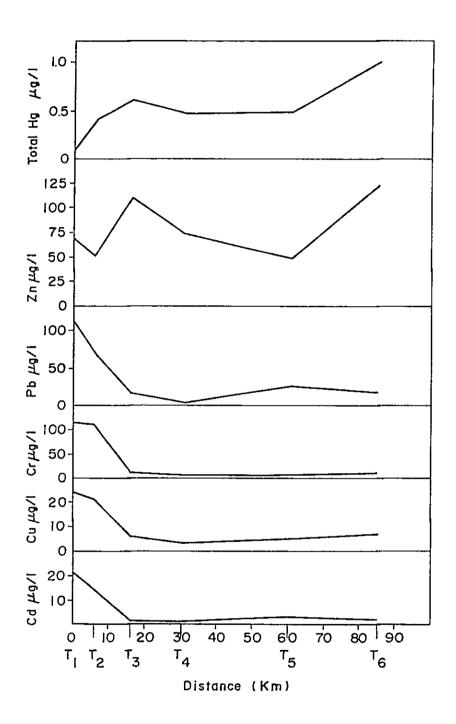




1. SAMPLING STATIONS ALONG THE THA-CHIN RIVER (1978)



ANNEX 2-15 WATER QUALITY OF THE THA CHIN RIVER (1978)



2. VARIATION OF Cd, Cu, Cr, Pb, Zn and Hg, IN THA CHIN RIVER (December 8, 1978)

- data not available

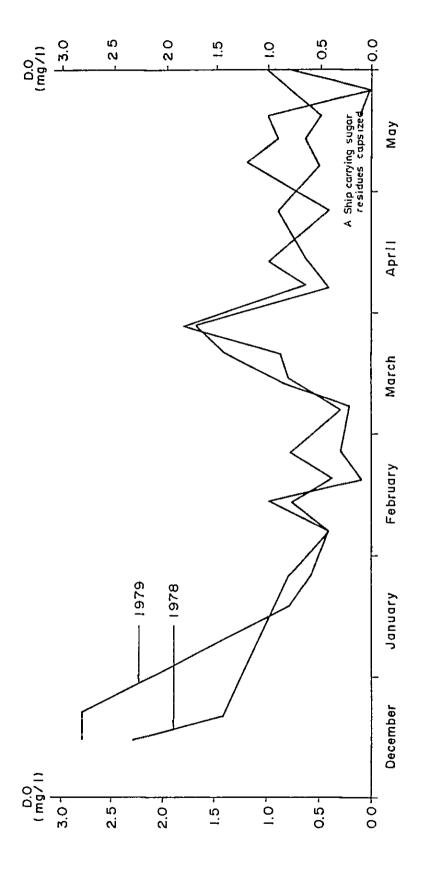
At unit for sediment and bloca

* unit for water

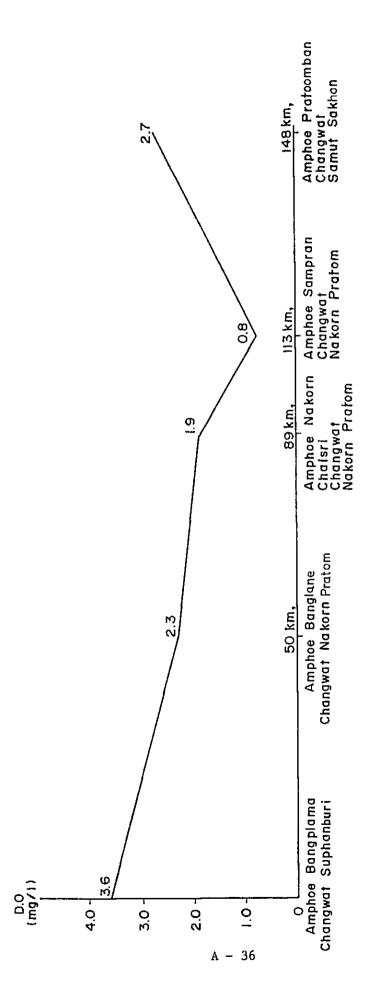
3. CONCENTRATIONS OF HEAVY METALS IN WATER, SEDIMENT AND BIOTA IN VARIOUS RIVERS AND SEAS IN THAILAND AND OTHER LOCATIONS

Source & Location	Type of		Heavy Metal		Concentration (µg/1,	l, ug/kg)		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
	Samples	ප	rg C	Ç	Pb	uz .	Hg	VETERICE
Ta-Chin River	Water	1	į.	•	•	ı	N11-37.2	SUTHAROJ (1977)
(river mouth) (1977)	Sediment	190	ı	•	7,100	63,000	060'τ	CHEEVAPARANAPIVAT (1979)
River mouth (depth 2.7 m.) (1974)	=	20	1	9,700	1,100	100	23,400	NRCT (1974) .ITTIKASEM (1977)
Mae Klong River	Water	ı		•	•	•	N11-6.33	SUTHAROJ (1977)
(river mouth) (1977)	Sediment	180 -	-		4,900	69,850	. 660	CHEEVAPARANAPIVAT (1979)
River mouth (depth 3.2 m.)		160	11,000	•	1,840	N11 .	NLI	ITTIKASEM (1977) NRCT (1974)
Ping River	Water	-	•			,	0.03-0.28	SUTHAROJ (1977)
Wang River	tt	•	_	1	•	1	0.20-0.70	s
You River	ı	1	-	-	•	•	0.42-1.10	=
Nan River	# .	ı	J	•		•	0.01-0.20	ı.
Petrochemical mite Cholbu- ri Province	Stream Water	BAX, 0.8	3,4-5.2	8-23	3,3-5,3	19-23	z-ī	resdob (1975)
	Seavater	0.84	0.625-50.0 avg. = 7.0	3.31-	1.2-34.8	2-44.0 mvg 22.4	0.3-22.0 avg. = 5.58	#
Black Sea	£	1	1	ı	3.6	-	ı	FISHERMAN & HOM (1976)
Sirfkit Dam	Stream Water	4.9	0.4	1	•	1	. •	McGARRY (1974)
Lopburi River	=	03.	3.1	-	•	•	ı	
-								

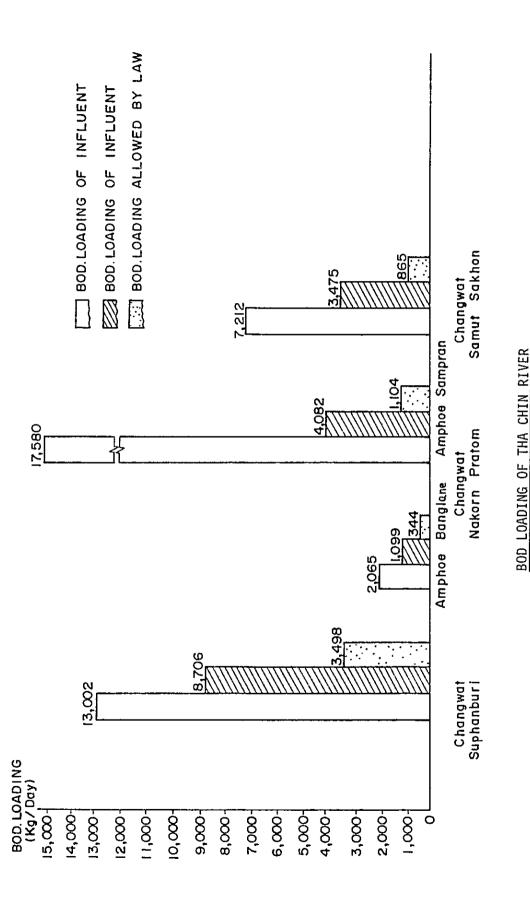
. A - 34



VOLUME OF OXYGEN DISSOLVED IN THE WATER (the minimum)



AVERAGE VOLUME OF OXYGEN DISSOLVED IN THE THA CHIN RIVER DURING THE SUMMER 1979 (January - May)

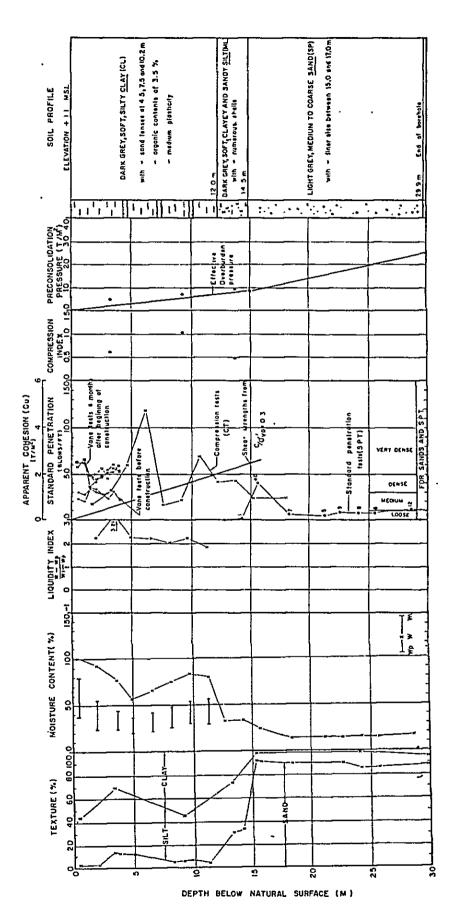


A - 37

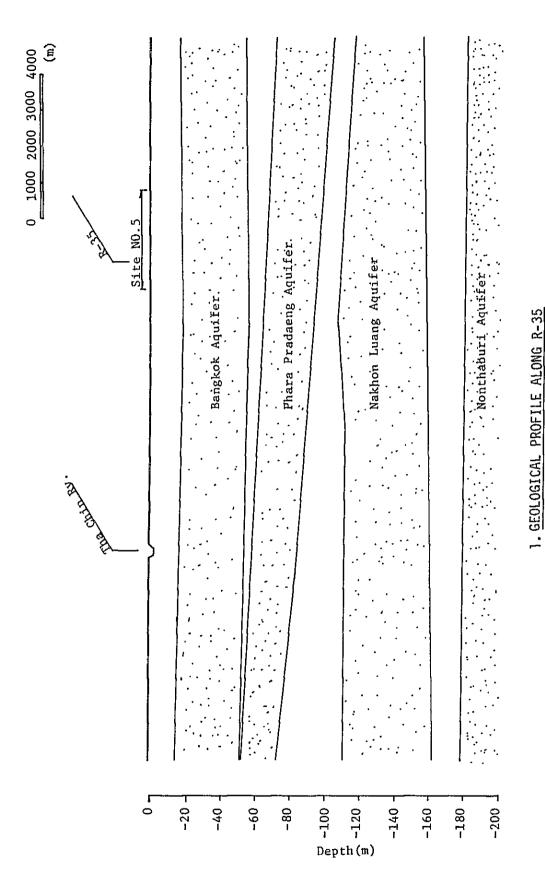
Annex 2-19 SOILS

1. SOIL CLASSIFICATIONS

Symbol	SP	ML	CL
Major Division	Coarse Grained	Fine Grained Soils	Containing
	Soils	little or Coarse Gr	ained Materials
	Sandy	Fine Grained Soils	having Low to
		Medium Compressibil	ity
Soil Groups &			
Typical Names	Poorly Grades Sands		Clays(inorganic)
,	little of no Fines	& very fine sands	of low to medium
		Rock Flour, Silty	plasticity. Sandy
		or Clayey fine	clays, silty clays,
		sands with slight	lean Clay.
		plasticity	
Value as Embank-	Stable,	Unstable,	Stable.
ment Material	Canal Sections	Embankment with	Core or Blanket
& Applications	with gentle	moisture control	
Permeability	Slope		
(cm/sec)	more than 10 ⁻³	10 ⁻³ -10 ⁻⁶	10 ⁻⁶ -10 ⁻⁸
Compaction	Good	Good to Poor	Fair to Good
Characteristics	Tractor	Close Control	Tamping Roller
& Equipment	11110101	Essential	Tamping Korret
a adorpment	į	Rubber Tired	
		Roller	Í
Dry Unit Weight	1.60-1.92	1.52-1.92	1.52-1.92
(t/m3)	1.60-1.92	1.52-1.92	1.32-1.92
Value as Subbase	Fair to Poor	Poor	Poor
with Bituminous	1		Ì
Surface			ļ
Value as Foundation	Fair to Good	Fair to Poor	Fair to Poor
when not subject			
Frost Action			
Shrinkage	Almost None	Slight to None	Medium
Expansion Elasticity			<u> </u>
Drainage	Excellent	Fair to Poor	Practically
Characteristics			Impervious
CBR in situ	10-25	5-15	5-15
Spring Constant	5.5-8.3	2.8-5.5	2.8-5.5
(kg/cm3)		<u> </u>	<u> </u>

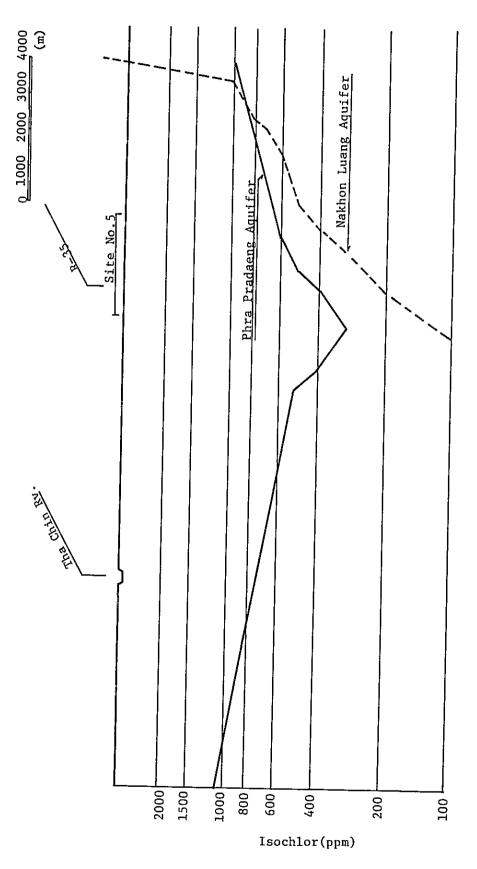


2. TYPICAL BORING LOG ALONG R-35

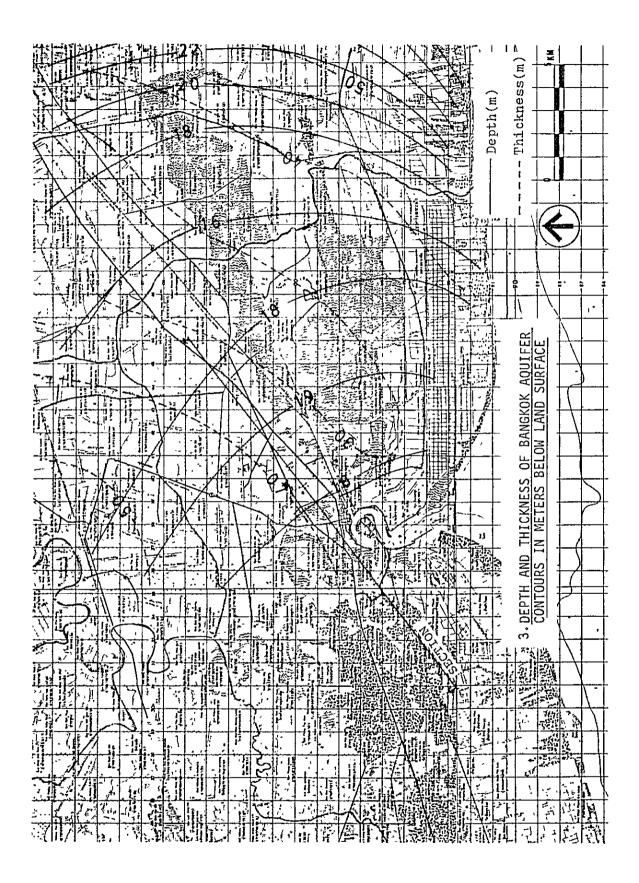


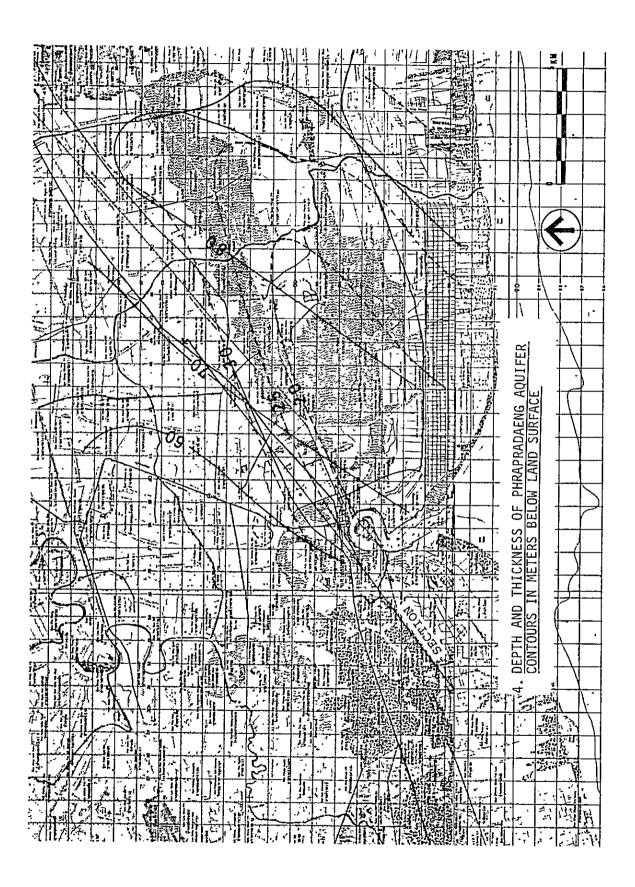
Annex 2-20 GROUNDWATER

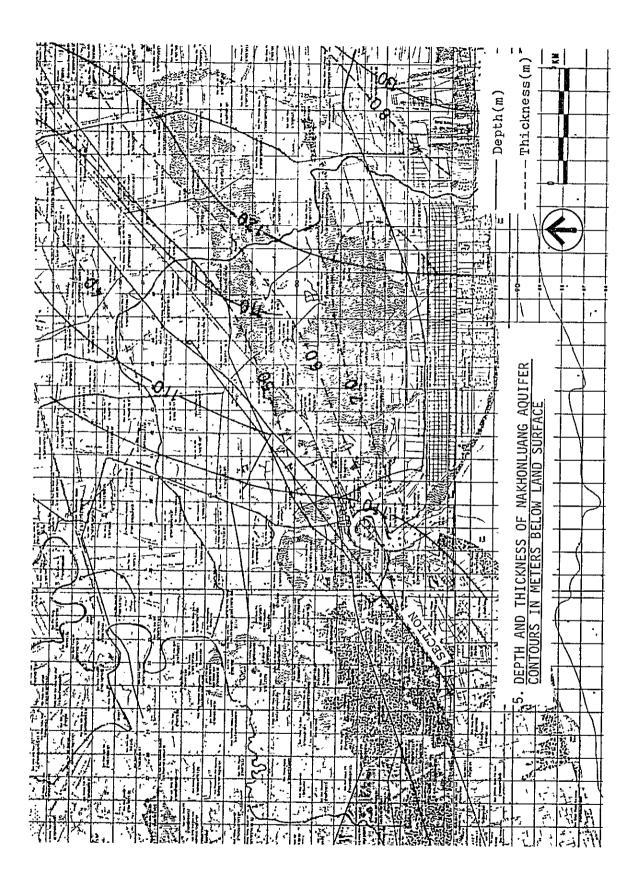
. A - 40

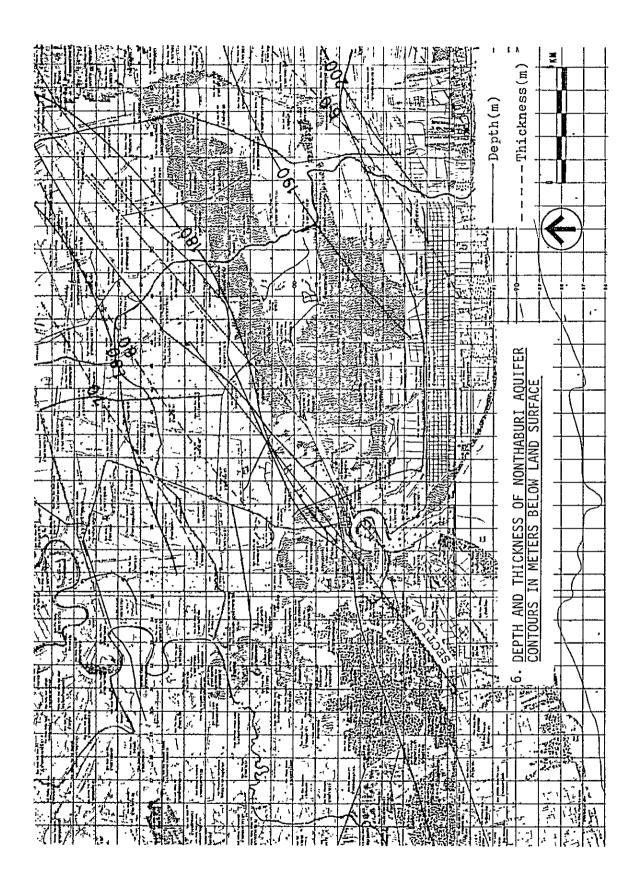


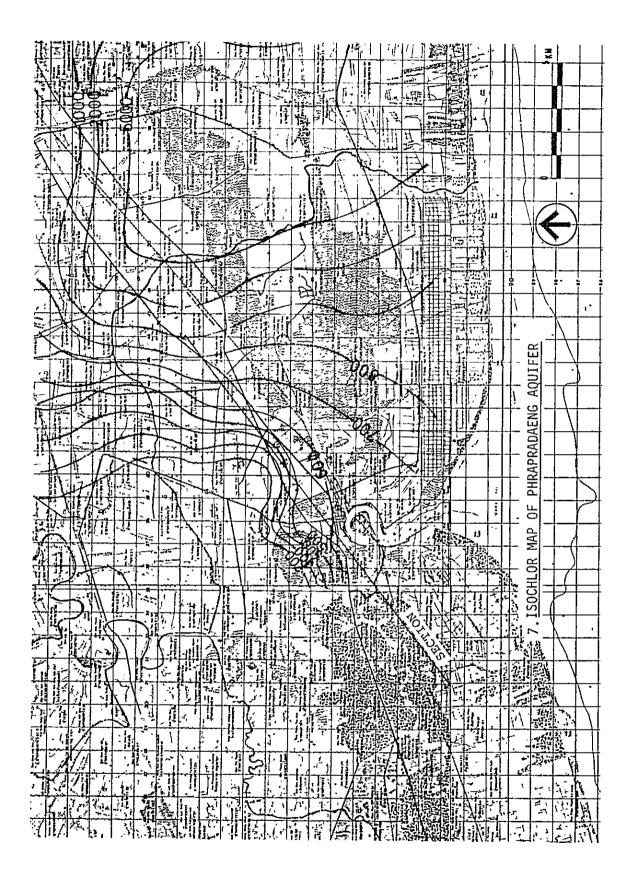
2. ISOCHLOR ALONG R-35

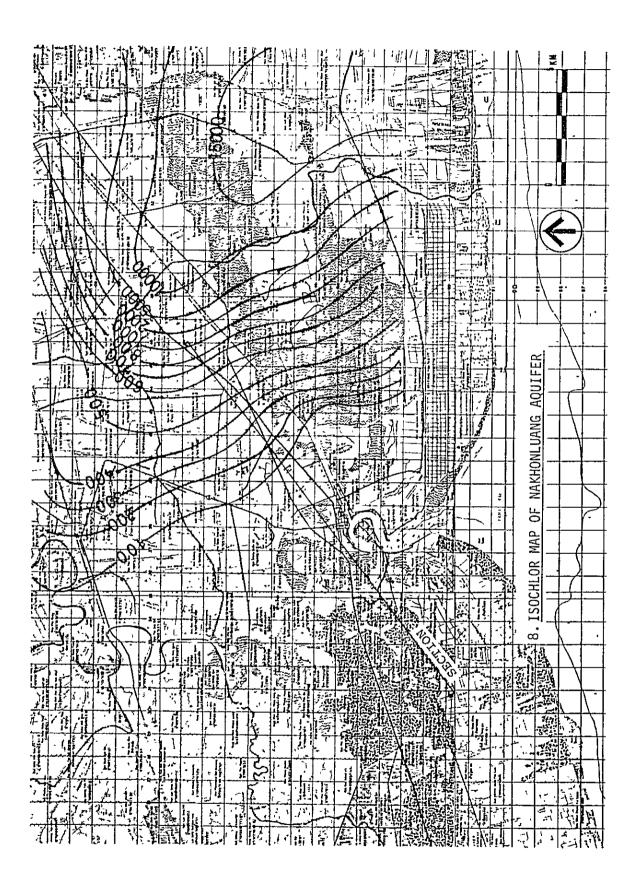


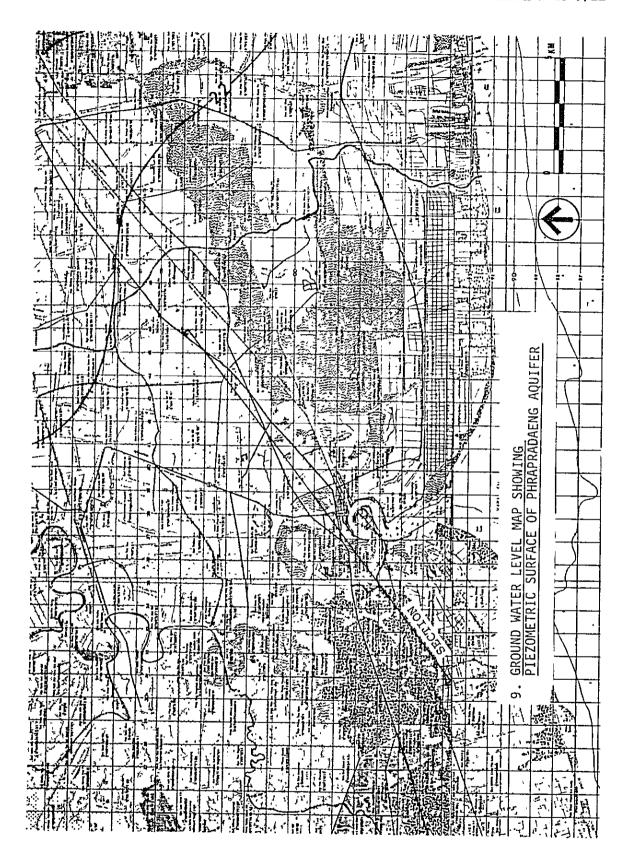


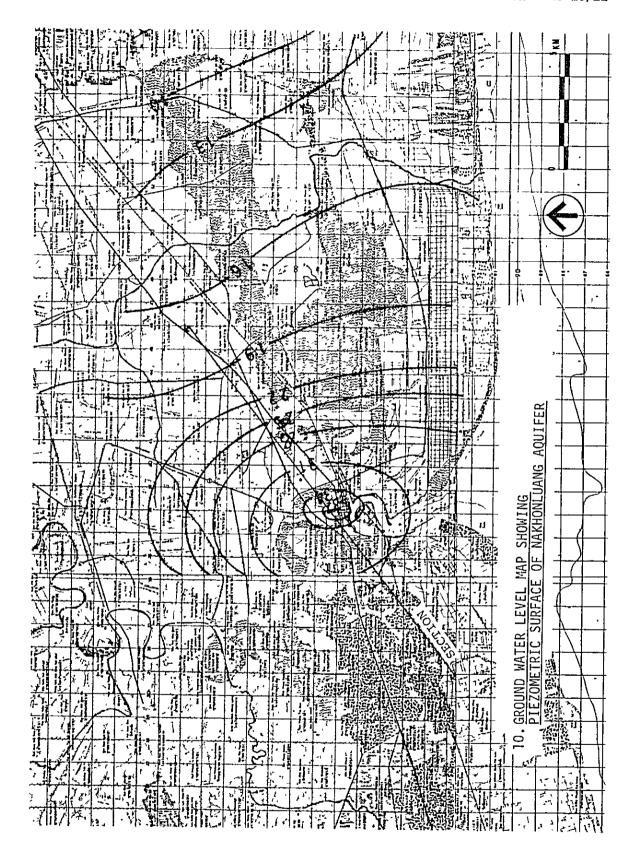


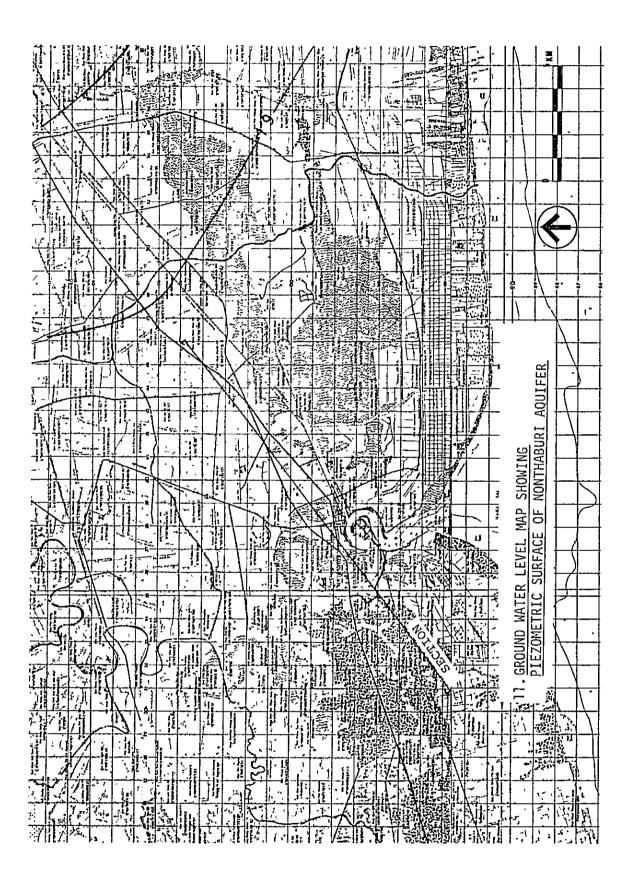












Annex 3-1 <u>AVERAGE ANNUAL POPULATION GROWTH RATE</u> BY FIVE YEARS AD 1960 - 2000

Unit: %

	1960	1965	1970	1975	1980	1985	1990	1995	2000
Bangkok		6.3	3.9	4.3	3.3	2.9	2.5	2.4	2.4
Samut Prakarn		3.3	3.6	5.3	3.4	3.2	2.9	2.7	2.6
Nonthaburi		3.6	2.9	4.7	2.8	2.7	2.3	2.2	2.2
Total		5.8	3.8	4.4	3.3	3.0	2.5	2.4	2.4

Source: Greater Bangkok Plan 2,000 MOINT

Annex 3-2 NUMBER OF FISH PROCESSING FACTORY, COLD STORAGE PLANT AND ICE PLANT, 1977

	Whole Country	Samut Sakhon
Fish meal	73	12
Fish sauce	109	15
Shrimp paste	567	5
Fish canned	6	2
Salted fish	312	51
Dried & boiled shrimp	105	_
Smoked fish	9	_
Steamed fish	55	_
Dried squid	172	***
Other kind of fish sauce	31	_
Shrimp & crabs canned	1	_
Fish ball	16	4
Shrimp crackers	4	_
Fermented fish	1	1
Others	14	~
Cold storage plant	39	3
Ice plant	154	6

Source: Fisheries Record of Thailand 1977 MOAC

PARAMETERS IN LINEAR REGRESSION EUQATIONS FOR ESTIMATING MANUFACTURING GDP BY TYPE OF INDUSTRY

	Type of Industry	а	b	R ²
1.	Foods	6.24	-20,264.4	0.83
2.	Beverage	8.99	14,085.96	0.98
3.	Tobacco & Snuff	15.33	-10,925.86	0.85
4.	Textile	13.41	-11,596.84	0.88
5.	Wearing Apparel	8.87	17,915.79	0.99
6.	Leather & Leather Products	34.43	53,801.96	0.01
7.	Wood & Cork	58.36	-35,642.97	0.84
8.	Furniture & Fixture	74.68	13,798.04	0.95
9.	Paper & Paper Products	127.65	3,635.48	0.82
10.	Printing & Publishing	171.12	-201,216.87	0.92
11.	Chemicals of Chemical Products	16.36	13,136.22	0.99
12.	Petroleum	19.80	-38,501.31	0.91
13.	Rubber & Rubber Products	18.55	33,260.27	0.99
14.	Non-Metal Mineral	10.56	25,377.22	0.99
15.	Basic Metal	34.11	17,756.17	0.88
16.	Metal Products	54.13	312.84	0.82
17.	Machinery	66.23	-3,018.58	0.95
18.	Electrical Machinery	35.21	137,077.00	0.93
19.	Transportation Equipments	7.90	25,927.88	0.97
20.	Miscellaneous	34.00	16,855.06	0.95

Note 1) Basic formula for equation is Y = at + b

where Y : GDP

t : Year

a : Coefficient

b : Constant

- 2) R² denotes coefficient of determination
- 3) Since the regression equation for "Leather and Leather Products" has a very low R^2 , its GDP in 1990 is estimated equal to that in 1978.

ESTIMATED LAND DEMAND BY TYPE OF INDUSTRY

		GDP Esti- mated in	GDP in- crease	Additional Land	Additional Land
	Type of Industry	1990 (National Level)	from 1978 to 1980 (National Level)	Required (National Level)	Required (BMA)
		(million Baht)	(million Baht)	(Rai)	(Rai)
1.	Foods	30,588	14,518	5,326	1,592
2.	Beverage	17,560	9,547	3,502	1,194
3.	Tobacco & Snuff	11,873	6,136	2,251	900
4.	Textile	13,615	6,348	2,329	897
5.	Wearing Apparel	17,365	9,818	3,602	1,491
6.	Leather & Leather Products	391	o	o	0
7.	Wood & Cork	2,755	820	301	76
8.	Furniture & Fixture	2,115	1,149	421	184
9.	Paper & Paper Products	1,315	697	256	113
10.	Printing & Publishing	2,133	464	170	74
11.	Chemicals & Chemical Products	9,704	5,270	1,933	804
12.	Petro1eum	10,540	4,543	1,667	657
13.	Rubber & Rubber Products	7,500	4,712	1,729	361
14.	Non-Metal Mineral	13,917	8,253	3,028	1,126
15.	Basic Metal	3,377	1,407	516	169
16.	Metal Products	3,164	1,615	592	202
17.	Machinery	2,630	1,321	485	192
18.	Electrical Machinery	4,123	2,586	949	381
19.	Transportation Equip- ments	18,520	10,833	3,974	1,594
20.	Miscellaneous	4,568	2,643	970	190
	Total	177,736	92,680	34,001	12,197

Note 1) For converting GDP into land site, land/GDP for standard factory in Thailand is adopted.

EXPORTS BY COMMODITIES

	;		ı					Unit:	Million	\$SN		
	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977
Food, beverages and animal, vegetable oil				344	348	411	554	689	1,388	1,335	1,773	
Crude materials excluding fuels			0	251	218	242	274	667	570	434	588	
Mineral fuels				2	5	7	13	21	21	13	7	
Chemicals				1	က	m	4	11	21	15	16	<u>. </u>
Textile				ı	10	22	95	123	140	135	239	
Iron, steel, non-ferrous metals				24	81	62	88	114	182	131	178	
Machinery				t				7	7	7	13	
Electrical machinery				l	4	9	2	2	14	24	87	
Transport equipment				3				6	7	- 5	80	
Miscellaneous manufactured goods				~	7	∞	Ŋ	15	25	29	46	
Goods not classified by kind				7	38	53	53	88	74	65	61	
All commodities				627	710	831	1,039	1,566	2,449	2,195	2,978	
	·								·		•	

Source : Yearbook of International Trade Statistics 1977

IMPORTS BY COMMODITIES

								Unit		Million US\$		
	1950	1955	1960	1965	1970	1971	1972	1973	1974	1975	1976	1977
Food, beverages and animal, vegetable oil				51	19	75	88	68	123	136	152	
Crude materials excluding fuels				110	123	142	153	245	304	289	350	
Mineral fuels				62	113	134	152	233	625	708	832	
Chemicals	-			75	167	176	227	325	454	439	505	
Textile				79	88	62	70	96	110	91	87	<u>.</u>
Iron, steel, non-ferrous metals				99	166	160	187	258	375	311	381	
Machinery				98	220	214	241	311	538	579	473	
Electrical machinery	-			41	105	98	95	136	177	192	221	
Transport equipment		•		84	135	132	133	240	299	369	361	
Miscellaneous manufactured goods		·		37	55	51	53	19	85	91	103	
Goods not classified by kind				25	52	54	83	69	58	29	66	
All commodities				725	1,293	1,287	1,484	2,073	3,156	3,279	3,572	<u>,,,</u>
		-	į	·								

Source : Yearbook of International Trade Statistics 1977

GROWING INDUSTRIES IN SAMUT SAKHON (1971 - 1977)

Type of industr	chowing more than	1977/ 1971	Type of industr	Showing more than	1977/
31122 31181 31210	Slaughter houses Sugar mills & refinaries Preparation of animal	201 274 334	31150 31401	Glycerin, vegetable & animal oil Cigarette and cigar	159 153
(31229) (31229)	feeds Candy	202 645			
31330 31340	Breweries Alcoholic beverages	233 253			
32115 32119	Dyeing Preparing, spining & weaving of yarns (expt. cotton & silk)	281 301	32113	Cotton textile	155
32120 32140	Made-up textile Mats from strew & fibers	396 394			
32201 32202 32401	Apparel Hats Footwear excpt. rubber and fiber one	245 250 216	32203 32118 3211	Umbrella Gunny bag	176 152
		•	34113	Papers	162
			34202	Printing of books, maps, etc.	168
35121 (35599) (35299)	Natural fertilizers Rubber-made roof material Printing ink	380 347 184	35221 35234	Medicine & cosmetics Clearning and bleach compounds	183 166
			35294	Powdered Gum Dammar	169
			35300 35400	Petroleum refineries & products	156
			35510	Tires, tubes and retreating tires	168
			36102 36200 36921 36993	Ceramics Glass and glass products Cements Concrete & cement products	171 182 159 161
38113	Aluminium-tin stainless	207			
38191	steel ware Oxidizing, plating, polishing of metals	239			
38210	Engine, machine equipments and parts	271	38392	Wet and dry batteries	179
38320	Radio, TV set and communica tions equipment and apparat				
(38330)	Refrigirater & Elec. Fans	381			
38431	Assembly of motor vehicles and parts	296	38420	Manufacture and repairing of railroad equipment	159
38432	Motor vehicles body	442		or rettroug eduthmettr	
38440	Assembling and repairing of motorcycle and bike	296			
39014	Silverware making	197			

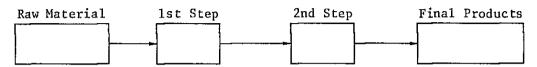
INDUSTRIAL SURVEY QUESTIONAIRE

	vace : rebruary
	Interview : Name & Title
	1
	2.
	Interview :
I. <u>Identification of Industry</u>	
Name of Company :	·
Address :	
Phone Number :	Number of Phone owned:
Telex own	not own
Category of Industry :	
Number of Upylone	
(1) Permanent	
(2) Casual	
Working Hour :	From. To.
Initial Investment Year	r :
(1) Land : Size(2) Buil	ding : Size (3) Machinery Cost
Cost	Cost
Additional Investment Year	
	lding : Size (3) Machinery Cost
Cost	Cost
Raw Material	
Name :	
Quantity:	ton
	or m ³ /month
II. Production Volume	Revenue Major Product Share(%)
1977	(1)
1978	(2)
1979	(3)
Market:	Share (%)
(1) Within BMA	
(2) Other Province	
(3) Export	
Size of Land :	the current Price of area
Size of Building:	

III. Type of Foundation

- (1) Pile
- (2) Raft
- (3) Others (Specify)

Process of Production



IV. Utility

Water Consumption : m³/month

Source of Water : well City water Others

Treatment of Water : Yes No

before Use

Electricity : Contreacted kw

Average Consumption : Kw/Hour/month or in Baht

Voltage :

V. Industrial Waste & Pollution Problem

Volume & Type Treatment Method Noise

Water Vibration

Solid Waste Care - in

Air Pollution Ground Water

Level Problem

VI. Transportation of Product: Transportation of Raw Material:

Mode Quantity Share(%) Quantity Share (%)

Truck

Train

Others

VII.	Transportation of W	lorkers			
Does	your company have ho	using accor	mmodation?		
If y	es, Number of workers	staying at	company l	nousing	
Tran	sportation of Workers	1			
	Mode Sha	re (%)			Share(%)
(1)	Walking/bicycle		Where the	workers come	e from?
(2)	Motorcycle		1. Local	area	
(3)	Public Bus		2. Bangko	ok	
(4)	Company Bus		3. Others	provinces ((specify)
(5)	Private Car				
(6)	Others:				
Comm	uting Distance of Wor	kers			
	Sha	re (%)			
Less	than 1 km				
1 - 3	10 km				
10 -	30 km				
over	30 km				
VIII.	. Future Prospect fo	r Your Indu	stry in th	ne 1980's	
	Excellent	Go	od	Bad	
IX.	Todays Investment En	vironments			
What	do you think of the	todays inve	stment env	ironments?	
(1)	Regarding market dem	and			
	* Domestic	Excellent		Good	Bad
	* Export	Excellent		Good	Bad
(2)	Financial condition		 	<u>-</u>	
	<pre>* Availability of Money</pre>	Excellent		Good	Bad
	* Interest rate	Excellent		Good	Bad

X. What are the Important Factors Choosing Your Plant Site?

- (1) Availability of Raw materials
- (2) Availability of Labor (skilled & unskilled)
- (3) Large space
- (4) Close to market
- (5) Availability of Utility (water, electricity, telephone)
- (6) Access Road (major highway, transportation)
- (7) Others (Specify)

XI. Why did you Choose the Present Location?

- (1) Inherited from previous owner/or later
- (2) The price was reasonable
- (3) Availability of Utilities
- (4) Others (Specify)

XII. Do You Face Problems or Inconvenience at the Present Location?

- (1) Lack of space
- (2) Complaint from neighbors about noise, pollution etc.
- (3) Difficult to obtain labor (skilled & unskilled)
- (4) Inadequate supply of water, electricity etc.
- (5) Others (Specify)

XIII. Do You have a Plan to Invest in the Future (within 10 years)

Yes No

New investment is (1) Expansion of existing factory

- (2) New branch factory at new location
- (3) Relocation of the present factory

XIV. What is the Major Reasons for New Investment?

- (1) Growth of market
- (2) Requirement of additional space
- (3) Complants about noise and other pollution
- (4) Availability of fund
- (5) Government control and incentives
- (6) Others (Specify)

XV. Do You Have any Special Area	for Your Plant Site in Your Mind?
(1) already acquired	
(2) already decided	
(3) not decided	
If yes : where	(Distance from Bkk.)
Size of land	
Price of land	
Why did you choose the location?	
For not already acquired:	
XVI. Do You Consider Samut Sakho	on Area as for New Plant Site?
Yes May	, be No
If yes or May be Why?	If no Why?
(1) reasonable price of land	(1) Too far from BMA
(2) convenient location	(2) inconvenience (specify)
(3) others (specify)	(3) shortage of housing
	(4) others (specify)
XVII. With the Given Conditions	are you Willing to move to SIE?
(1) Definitely yes	(2) Most likely
(3) May be	(4) No
If Yes, or maybe. How many Rai of land do you want?	?
Rai	
Why?	
(1) reasonable price of land	
(2) availability of utility(3) good location	
~	"No" is one continue chance to use
consider SIE as for your plant si	"No" if some conditions changes do you
Yes No	
specify necessary condition	,
(example, if the price is lower t	the suggest price)

XIX. What Type of Facilities at or near SIE do You Wish Beside the Basic Utilities?

- (1) a common water treatment system
- (2) housing for workers
- (3) workshop
- (4) park
- (5) commercial area
- (6) community center (post office, bank, school, etc.)
- (7) others (specify)

XX. What is the Reasonable Price Range for SIE with Completed Basic Utilities?

- (1) 200,000 250,000 Baht
- (2) 250,000 300,000 Baht
- (3) 300,000 350,000 Baht
- (4) 350,000 400,000 Baht

LAND DEMAND TO SIE BY TYPE OF INDUSTRY (INDUSTRIAL SURVEY RESULT)

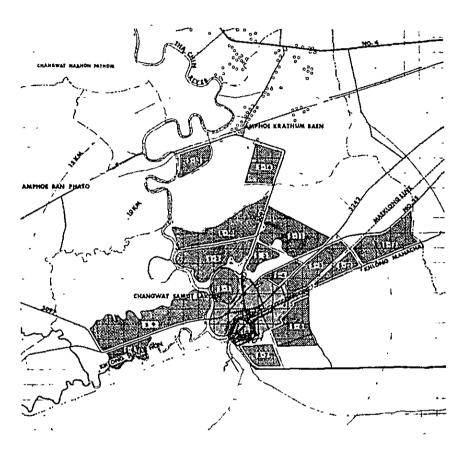
Type of Industry Total No. of Prese	Total No.of	Present	nt Land Size	No.of Factories	ries	Land D	emand from	Land Demand from Land Demand from	nd from
	Answered Factories			willing to move to SIE from Banakok	move Bangkok	Bangkok	¥	Samut Sakhon	nou
		Total	Average			Total			
		(Rai)	(Rai)	(1) + (2)	(3)	(Rai)	(Rai) $(1) + (2)$ (3)	(1)+(2) (3)	(3)
1. Textile	29	181.87	6.27	10	11	154.0	84.0 70.0	_ C	10.0
2. Metal	27	75.43	2.79	4	14	119.0	35.0 84.0	-	1
3. Food	13	65.27	5.02	ന	9	53.0	20.0 33.0		0
4. Plastic	9	6.83	1.14	4	7	25.0	21.0 4.0	0 10.0	ı
	7	7.95	1.14	т	m	18.5	8.0 10.5	1	5.0
6. Chemical	2	27.00	13.50	I	Н	4.0	- 4.0	<u> </u>	1
	н	7.00	7.00	rН	i	20.0	20.0	1	1
8. Ceramic	1	ı	1	1	,	1	ı	1	ı
9. Glass	8	29.00	3.63	7	ı	7.0	7.0	!	1
10. Paper	ᄅ	12.00	12.00	1	ı	1	1	1	!
Total	94	412.35	4.39	27	36	400.5	400.5 195.0 205.5	5 10.0 20.0	20.0

Note; (1): Answerd Definitly yes (2): Most likely (3):

TOTAL DATA AND LAND DEMAND TO SIE BY ZONES OF FACTORIES

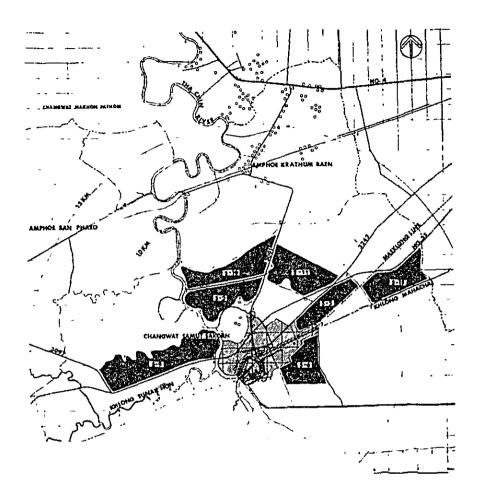
(21-29 FEB. 1980 Industrials Survey Result)

REMARKS		2 Most likely 3 May be	200,000	2 250,000 - 300,000 3 300,000 - 350,000	A common w		4 rark 5 Commercial area 6 Community center (post office,	bank, school, etc.) 7 Others (specify)						
	3 1/		4 2/		3 3/	l 	- 4		φ. 8 0	m			6.80	<u></u>
IRY		7 – 3	5 -	1	5 - 11 6 - 13		6 - 14		0,0	7 – 3			5	7 – 3
NECESSARY FACILITIES	3/ 1-10	3 - 7	1 - 3	3 - 4	77	4 1 8 8	1 - 8 2 - 16	3 - 8	1-33	3-27			1-332-52	$\frac{3-27}{4-17}$
REASONABLE LAND PRICE SIE	- 8	E 4	1 - 9	1.1	$\frac{1-13}{2-2}$	3 - 2	1 - 17	3 - 1	1 - 47	3 - 3	1 - 4	3 4	1 - 51	4 1 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3
LAND DEMAND TO SIE (RAI)	T. 110.0	Av. 9.17	T. 50.0	Av. 4.55	T. 105.0	Av. 5.53	T. 135.5	Av. 6.16		Av. 6.26	T. 15.0	Av. 3.75		
WILLING- NESS MOVE TO SIE	1 1	3 - 9	1 2 - 4	3 - 7	1 - 8	3 - 9	1 - 6 2 - 4	3 - 12	1 - 16	3 - 37	1 - 1	3 - 3 4 - 14	1 - 17	3 - 40
POSSESSION OF HOUSING ACCOMMO- DATION	YES 16	е -	YES 13	111	YES 17	9	YES 19	6 (YES 65	62 0	YES 13	5 (YES 78	34
<u> </u>	_	2		S.		<u> </u>		2		2		<u>Q</u>		Q.
PRESENT LAND SIZE (RAI)	195.25	10.28	133.80	5,58	42.58	1.85	41.27	1.47	412.90	4.39	329.25	18.29	742.15	6.63
NO. OF WORKERS	7,585	399	2,331	16	1,546	19	1,998	17	13,460	143	2,856	158	16,316	146
NO. OF FACTORIES	19		57		23		28	 	96	 	18		112	1 1 1 1
ZNOZ	1. PRA PRA DAENG - Total	- Average data per factory	Z. PHASI CHARDEN - Total	Average data	3. RAJA BURANA - Total	- Average data per factory	4. BANG KUN TIEN - Total	- Average data per factory	TOTAL	- Average data per factory	5. SAMUT SAKHON - Total	- Average data per factory	GRAND TOTAL	Av.



Source: Prelimlinary Feasibility Study for SIE, ECFA

SELECTION OF CANDIDATE SITES OF INDUSTRIAL ESTATE
- PRIMARY SELECTION -



Source: Preliminary Feasibility Study for SIE, ECFA

SELECTION OF CANDIDATE SITES OF INDUSTRIAL ESTATE - SECONDARY SELECTION -

Annex 5-3. EVALUATION OF CANDIDATE SITES (Case 1)

	Items	Max. Score	S-2	S+5	s-6	6-8	S-10	S-11	s-15
Env	Environmental Acceptability	30	22.7	16.8	17.8	29.3	5.7	7.6	13.1
Wat	Waterway discharge	25	18.7	12.6	14.9	25.0	0°E	3.3	8.1
8	Constant wind direction	2	1.0	1.2	6.0	1.3	1.2	1.3	2.0
Exi	Existing environmental problems	m	3.0	3.0	2.0	3.0	1.5	3.0	3.0
Inf	Infra & Utility Services Availability	25	15.5	19.8	19.0	18.3	15.8	17.1	16.5
Rõ	Road & commuter service	10	5.4	10.0	7.9	8.2	5.1	9.2	0.6
Wat	Water supply	8	7.5	5.7	8.0	7.6	7.3	6.2	3.8 8.
PO	Power supply	23	0.7	0.3	0.1	0.1	2.0	0.4	0.1
Te	Telecommunications	2	1.6	1.8	2.0	2.0	1.3	1.2	9.0
R	Railway	٦	0	1.0	0	0	0	0	1.0
Wa	Waterway	2	0.3	1.0	1.0	0.4	0.1	0.1	2.0
La La	Land Acquisition Possibility & Develop. Cost	30	20.4	23.7	27.8	22.7	19.9	20.7	26.7
ដ	Land price	2	3.0	4.0	5.0	4.0	3.0	4.0	4.0
2	No. of houses & land ownership	2	2.3	2.7	5.0	2.3	2.3	1.8	3.6
8	Development cost (external)	12	11.1	12.0	10.8	11.9	10.6	10.9	11.6
Ö	Current land use & productivity	Ŋ	1.5	2.5	5.0	2.0	1.0	1.0	5.0
Ę	Topography & soil condition	m	2.5	2.5	2.0	2.5	3.0	3.0	2.5
&	Regional Development Policy	1.5	10.5	11.5	4.5	6.5	9.5	12.0	11.0
s R	Satellite city development policy	e .	1.5	3.0	1.5	1.5	1.5	3.0	3.0
P	Provincial development policy & plans	ო	3.0	3.0	1.0	2.0	2.0	3.0	3.0
Ö	Development effects to the surroundings	ന	2.0	3.0	0.5	1.0	1.0	2.0	2.0
T	Trends in factory location	е	3.0	0	1.0	1.0	3.0	1.0	0
Ħ	Expansion possibility	3	1.0	2.5	0.5	1.0	2.0	3.0	3.0
	Total score	100	69.1	71.8	69.1	76.8	50.9	57.4	67.3
			3	2	3	1	7	9	2

EVALUATION OF CANDIDATE SITES (Case 2)

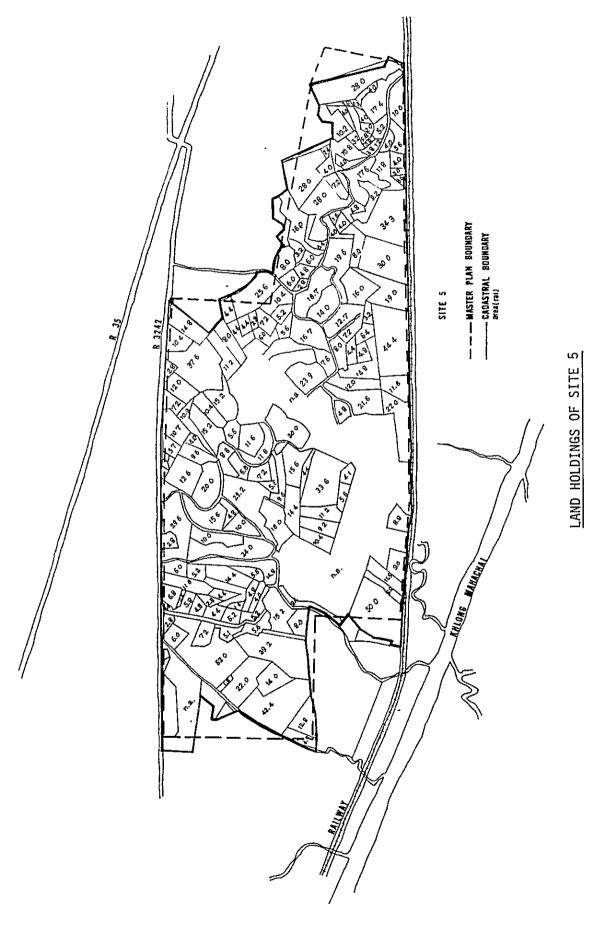
	s-15	14.7	9.7	2.0	3.0	19.8	0.6	5.1	0.1	9.0	2.0	3.0	26.4	4.0	3.0	11.3	2.0	2.5	11.0	3.0	3.0	2.0	0	3.0	71.9	
	S-11	9.5	5.2	1.3	3.0	19.3	9.2	7.9	0.4	1.2	0.5	0.1	19.7	4.0	1.8	6.6	1.0	3.0	12.0	3.0	3.0	2.0	1.0	3.0	60.5	
	S-10	7.6	4.9	1.2	1.5	17.7	5.1	9.2	2.0	1.3	0	0.1	18.7	3.0	2,3	9.4	7.0	3.0	9.5	1.5	2.0	1.0	3.0	2.0	53.5	
i	6-S	24.3	20.0	1.3	3.0	20.4	8.2	9. N.	0.1	2.0	0	9.0	22.7	4.0	2.3	11.9	2.0	2.5	6.5	1.5	2.0	1.0	0.1	1.0	73.9	
	9-S	20.9	18.0	0.9	2.0	22.5	7.9	10.0	0.1	2.0	1.0	1.5	26.8	5.0	2.0	8.6	5.0	2.0	4.5	1.5	1.0	0.5	1.0	0.5	74.7]
	S-5	19.3	15.1	1.2	3.0	23.9	10.0	7.3	0.3	1.8	3.0	1.5	23.7	4.0	2.7	12.0	2.5	2.5	11.5	3.0	3.0	3.0	0	2.5	78.4	
	S-2	19.0	15.0	1.0	3.0	17.6	5.4	9.4	0.7	1.6	0	0.5	19.6	3.0	2.3	10.3	1.5	2.5	10.5	1.5	3.0	2.0	3.0	1.0	66.7	
	Max. Score	25	20	7	m	30	10	10	7	7	m	m	30	2	Ŋ	12	Ŋ	m	15	e	ന	ന	m	ო	100	
	Item	I Environmental Acceptability	i Waterway discharge	ii Constant wind direction	iii Existing environmental problems	II Infra & Utility Services Availability	i Road & commuter services	ii Water supply	iii Power supply	iv Telecommunications	v Railway	vi Waterway	III Land Acquisition Possibility & Develop. Cost	i Land price	ii No. of houses & land ownership	iii Development cost (external)	iv Current land use & productivity	v Topography & soil condition	IV Regional Development Policy	i Satellite city development policy	ii Provincial development policy & plans	iii Development effects to the surroundings	iv Trends in factory location	v Expansion possibility	Total score	

EVALUATION OF CANDIDATE SITES (Case 3)

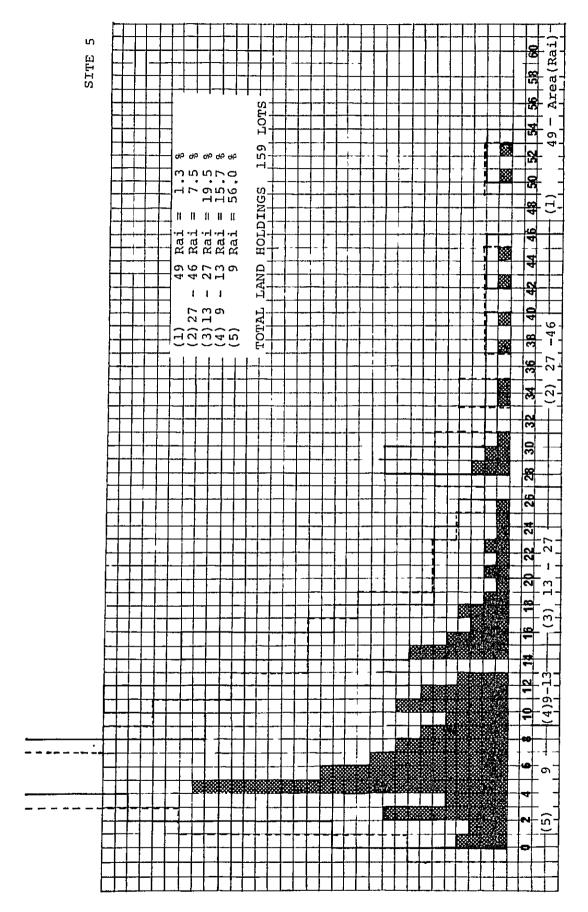
S-15	13.6	9.6	2.0	2.0	19.8	9.0	5.1	0.1	0	2.0	3.0	25.5	4.0	3.6	10.4	5.0	2.5	11.0	3.0	3.0	2.0	0	3.0	6.69	6
s-11	9.1	5.8	1.3	2.0	19.3	9.2	7.9	0.4	1.2	0.5	0.1	18.2	4.0	1.8	8.4	1.0	3.0	12.0	3.0	3.0	2.0	1.0	3.0	9.85	9
S-10	7.8	5.6	1.2	1.0	17.7	5.1	9.2	2.0	1.3	0	0.1	17.4	3.0	2.3	8.1	1.0	3.0	9.5	1.5	2.0	1.0	3.0	2.0	52.4	7
8-9	19.3	16.0	1,3	2.0	20.4	8.2	0.0	0.1	2.0	0	9.0	24.9	4.0	2.3	14.1	2.0	2.5	6.5	1.5	2.0	1.0	1.0	1.0	71.1	2
S-6	15.5	13.1	6.0	1.5	22.5	7.9	10.0	0.1	2.0	1.0	1.5	25.3	5.0	5.0	8,3	5.0	2.0	4.5	1.5	1.0	0.5	1.0	0.5	67.8	4
S 1.5	15.3	12.1	1.2	2.0	23.9	10.0	7.3	0.3	1.8	3.0	1.5	28.7	4.0	2.7	17.0	2.5	2.5	11.5	3.0	3.0	3.0	0	2.5	79.4	1
S-2	16.8	13.8	1.0	2.0	17.6	5.4	9.4	0.7	1.6	0	0.5	18.0	3.0	2.3	8.7	1.5	2.5	10.5	1.5	3.0	2.0	3.0	0.	62.9	5
Max. Score	20	16	2	2	30	10	10	7	2	m	m	35	υ.	ιΩ	17	5	m	15	æ	က	က	33	m	100	
Item	I Environmental Acceptability	i Waterway discharge	ii Constant wind direction		II Infra & Utility Services Availability	i Road & commuter services	ii Water supply			v Railway	vi Waterway	III Land Acquisition Possibility & Develop. Cost	i Land price	ii No. of houses & land ownership			v Topography & soil condition	IV Regional Development Policy	i Satellite city development policy	ii Provincial development policy & plans	Development effects to		v Expansion possibility	Total score	1 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1

EVALUATION OF CANDIDATE SITES (Case 4)

	Items	Max. Score	S-2	S-5	8-6	S-9	S-10	S-11	s-15
н	Environmental Acceptability	15	12.9	11.6	11.8	14.6	7.9	9.1	10.2
	Waterway discharge	12	10.4	9.0	6.6	12.0	6.3	6.5	7.2
i i	Constant wind direction	-	0.5	0.6	0.4	9.0	9.0	0.6	1.0
iii	Existing environmental problems	2	2.0	2.0	1.5	2.0	1.0	2.0	2.0
Ή	Infra & Utility Services Availability	35	19.5	27.9	26.0	22.5	19.6	21.6	23.5
·r·l	Road & commuter service	101	5.4	10.0	7.9	8.2	5.1		9.0
ŗŗ	Water supply	12	11.2	8.8	12.0	11.4	11.0	9.6	6.3
iii	Power supply	2	0.7	0.3	0.1	0.1	2.0		0.1
λţ	Telecommunications	2	1.6	1.8	2.0	2.0	1.3		9.0
>	Railway	2	0	5.0	2.0	0	0		3.5
Ÿ	Waterway	4	9.0	2.0	2.0	0.8	0.2		4.0
III	Land Acquisition Possibility & Develop. Cost	35	12.2	28.7	19.2	22.9	11.2	13.4	20.9
•r-l	Land price	5	3.0	4.0	5.0	4.0	3.0	4.0	4.0
i i	No. of houses & land ownership	2	2.3	2.7	5.0	2.3	2.3	1.8	3.6
iii	Development cost (external)	17	2.9	17.0	2.2	12.1	1.9	9.0	5.8
iv	Current land use & productivity	ນ	1.5	2.5	5.0	2.0	1.0	о. Н	2.0
>	Topography & soil condition	m	2.5	2.5	2.0	2.5	3.0	3.0	2.5
ΙΛ	Regional Development Policy	15	10.5	11.5	4.5	6.5	9.5	12.0	11.0
•4	Satellite city development policy	3	1.5	3.0	1.5	1.5	1.5	3.0	3.0
·다	Provincial development policy & plans	m	3.0	3.0	1.0	2.0	2.0	9,0	3.0
111	Development effects to the surroundings	m	2.0	3.0	0.5	1.0	1.0	2.0	2.0
iν	Trends in factory location	m	3.0	0	1.0	1.0	3.0	0.1	0
>	Expansion possibility	m	1.0	2.5	0.5	1.0	2.0	3.0	3.0
	Total score	100	55.1	79.7	61.5	66.5	48.2	56.1	65.6
			٠	-	-	,	7	ď	,,



A - 71



CHARACTERISTIC OF LAND HOLDING CLASSIFIED BY AREA

FACILITIES TO BE MADE IN THE SIE

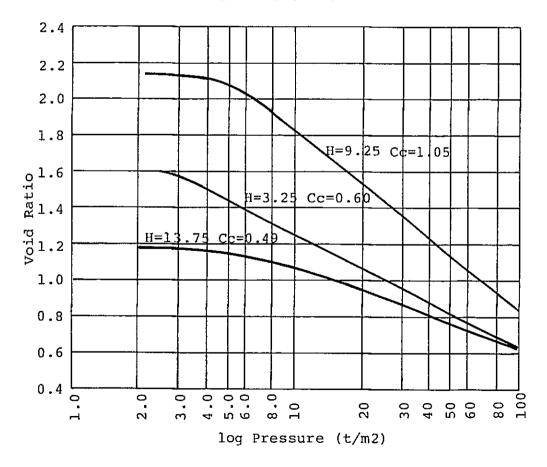
			of ity		onsor vestor		ntenance eration	Remarks
	A	В	С	IEAT	Others	IEAT	Others	
(Commercial Facilities) Bank Clinic Shopping area Cafeteria Restaurant Bar	0	0 0 0	0		0 0 0 0		0 0 0	Private " Residential Area
Central Kitchen Gas Station Nursery Home Truck Terminal Guest House Weigh Bridge	0	0 0	0		0 0 0		o o o	in Restaurant Private Residential Area E.T.O. Private
(Public Facilities) Post Office Fire Station Security Office Solid Waste Disposal Bus Stop Schools	0 0 0	0	0	o	o o o	O	0 0	Municipality Municipality Residential Area
(Administration Center) IEAT Office . office room . conference room . exhibition hall . training center . library . car parking	0			О		O	3	
Workshop Warehouse	0	0		0		0		
(Park and Green) Park & Lake Play Ground Sport Fields Buffer Green Promenade	00000			0 0 0		0 0 0 0		
(Utilities) Water Supply Power Supply Storm Drainage Treatment Plant Telephone Station	0 0 0 0			0	0	0 0	0	P.E.A., E.G.A.T. T.O.T.

Note: must: A preferable: B not necessary: C

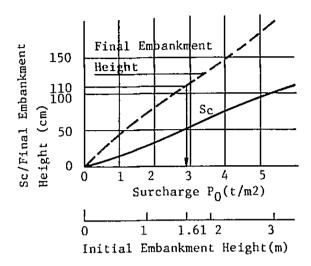
1. SOIL CONDITIONS

ELEVATION + 11 MSL	Υ _t (t/m3)	$P_{\mathbf{c}}$	°0	Cc	Cv	Depth (m)
 	1.60	1.35	1.60	0.60	10x10 ⁻⁴	2.25
DARK GREY, SOFT, SILTY CLAY (CL)						
with - sand lenses at 45,75 and 10 2 m	1.60	3.72	1.60	0 60	10×10 ⁻⁴	1.30
- medium plasticity	1.60	5.43	2 02	1.05	1x10 ⁻⁴	1.15
- - - 12 0 m	1.60	6.78	2.02	1.05	1×10 ⁻⁴	0.70
DARK GREY, SOFT, CLAYEY AND SANDY SILT(ML) with - numerous shells 14 5 m	1.60	7.95	1.10	0 49	7×10 ⁻⁴	1.25
LIGHT GREY, MEDIUM TO COARSE SAND(SP) with - finer size batween 15 0 and 170m						

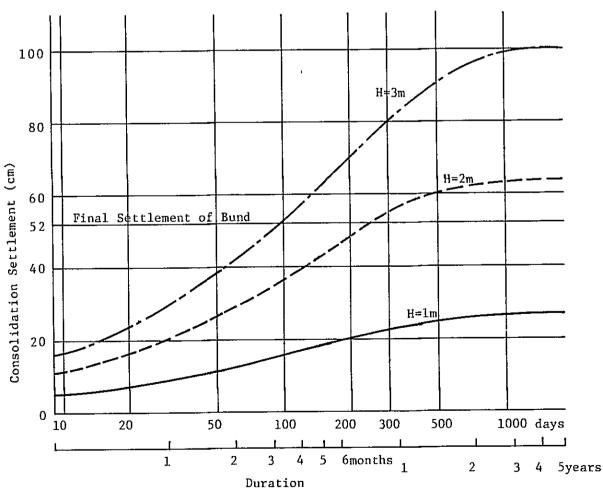
Typical Boring Log and Pigures of Stratum



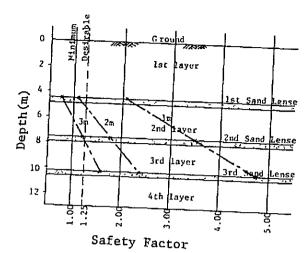
2. CONSOLIDATION SETTLEMENT



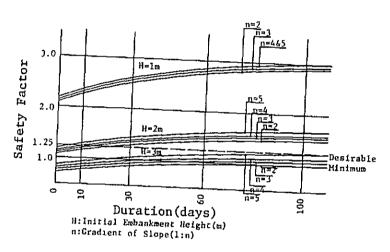
Final Settlement and Initial Embankment Height Sc : Final Settlement (cm)



Settlement-Duration Curve H : Initial Embankment Height

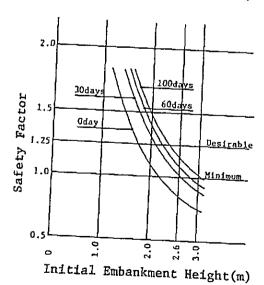


Depth of Slip Surface and Safety Factor (Slope 1:2.0, U=0%)



Gradient of Slope, Consolidation Rate, and Safety Factor

(Depth of Slip Surface; 4.5m)



Initial Embankment Height, Duration and Safety Factor

1. WATER LEVEL AT THE PUMPING STATION AND THE PERIPHERAL POINTS

	Dike	Branch 1	Branch 2	Branch3	Branch 4
Q (m3/sec)	22.135	5.331	5.331	7.013	3.518
Water Level					
1 m	2.556	3.021	3.017	3.309	3.249
2 m	2.616	3.162	3.157	3.373	3.350
3 m	3.167	4.194	4.191	3.944	3.998

2. Typical Cross Sections

Dike

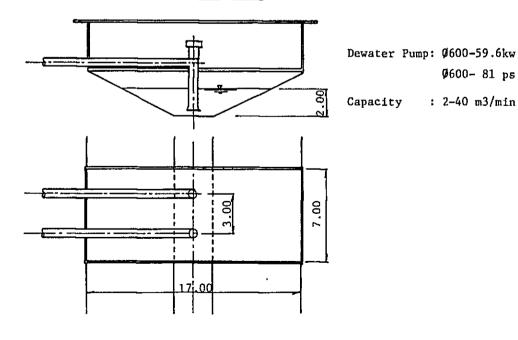
Branch Channel

3.00 1.00 3.00

7.00

17.00

3. Pumping Station



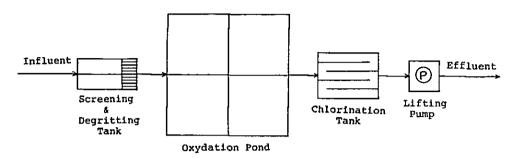
DESIRED WATER QUALITY STANDARD FOR INDUSTRIAL USE BY RESPECTIVE INDUSTRIES AND APPLICATIONS

Remarks				
Manganese Mn (ppm)	000 0	0.1.0	0.1 0.05 0.01 0.05	0.1 0.1 0.1
Iron Fe (ppm)	1.00 0 0	1.00	0.05	0.1
Chlorine Ions $_{\mathrm{C}\mathcal{K}}^{-}$ (ppm)	30 20 30 30 10	20 20 20 20	100 20 10 10	30 20 - 20 20
Evaporative Sediment (ppm)	80 80 80 80	200 200 200 150 150	100 50 50 50 50	200 200 - 150 150
Hardness CaCo3 (ppm)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	60 500	50 100 10 20 10	50 50 50 50
Alkalinity CaCo3 (ppm)	35 35 60 50 50 40	60 t 50 08	50 50 50 50	60 50 50 50
рн (-1одн)	rrr r r	LL: L	~ ~ ~ ~ ~ ~	rr
Clarity (ppm)	10 10	20 20 20	20	20 - 20 20 - 20 20 - 20
	Cooling Cleaning Raw Material Boiler Temp. & Humidity Control Product	Cooling Cleaning Raw Material Boiler Temp. & Humidity Control	Cooling Cleaning Raw Material Boiler Temp. 6 Humidity Control Product	Cooling Cleaning Raw Material Boiler Temp, 6 Humidity Control Product
Industry (Industrial Application Classification)	18 19 Food Processing	20 Textiles (except dyeing) 21 Clothing and Other Textile Products	2068 Dyeing and Textile Preparation	22 Lumber & Lumber Products 23 Furniture & Equipment Manufacturing

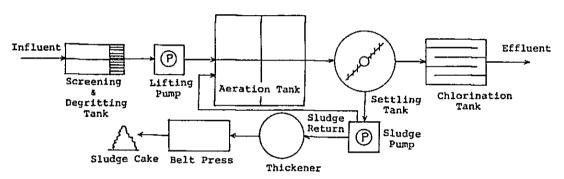
	·	 1										•	_						_		<u> </u>				_	
0.02	0.02	0.02	0.1	0.1		0,1	l •	0.1	0.05	0.05	0.05	•	0.05		0.05	0.05	10.0	0.01		0.01	0.01	0.1	0.1		0.1	0.1
0.05	0.05	0.05	0.1	0.1	_	0,1	!	0.1	0.1	0.1	0.1		0,1	!	0.1	0.1	0.05	90.0		0.1	0.05	0.1			0.1	0.1
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30 30 50	50	40	09	20		09)	50	50	50	40		70	•	50	40	40	40		06	20	09	04		09	50
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Cooling Cleaning Raw Material	Boller Temp. & Humidity Control	Product Processing	Cooling	Cleaning	Raw Material Boiler	Temp. & Humidity	Control	Product Processing	Cooling	Cleaning	Raw Material	Boiler	Temp. & Humidity	Control	Product Processing	Cooling	Cleaning	Raw Material	Boiler	Temp. 6 Humidity Control	Product Processing	Cooling	Cleaning Raw Material	Roiler	Temp. & Humidity Control	Product Processing
Paper &	raper Froducts				25 Publishing, Printing							26 Chemical Industry	כוובוווד כמד דוומתפרדל						cts	& Coal Products	<u></u>		oc british occurrent	Number Froduces	29 Tanning & Related Leather Products	

·				,			<u>-</u> -		<u> </u>													
															1							
0.1	0.1	0.1							0.1	0.1	0.1		0.1	0.1	0.1	0.1			1,0	!	0.1	
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15 15 10	10	10	30	33			20	20	20	16	20		20	20	20	20			20	}	20	
Cooling Cleaning Raw Material Boiler	Temp. & Humidity Control	Product. Processing	Cooling	Cleaning	Raw Material	Boiler	Temp. & Humidity Control	Product Processing	Cooling	Cleaning	Raw Material	Boiler	Temp. 6 Humidity Control	Product Processing	Cooling	Cleaning	Raw Material	Boiler	Temp. & Humidity	Control	Product.	FIOCESSTUR
30 Ceramics, Earth &	2					31 Steel					32 Non-Ferrous Metal	33 Metal Products			34 General Machinery		35 Electrical Machinery	36 Transportation			3/ Precision machinery & Equipments	38 Arms Manufacturing
			L			1.1	·		L		. ,				٦		ea	۲۲)			٠,	(*)

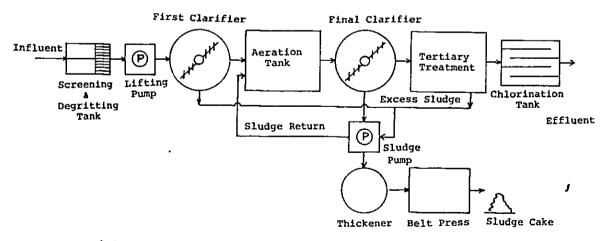
MAIN FLOW SHEETS OF WASTEWATER TREATMENT PLANTS



1st Stage Waste Water Treatment System (Oxydation Pond)



2nd Stage Waste Water Treatment System (Activated Sludge System)



3rd Stage Waste Water Treatment System (Tertiary Treatment)

ALLOWABLE TRADE EFFLUENT STANDARD

Unit: ppm

Item	Discharge	to River	Dischar	ge to Sewer
1 cen	Japan <u>l</u> j	Thailand 2	Japan 3	Thailand 4
BOD (5days 20°C)	av.120	av.20	<600	<5000
	max.160	max.60		
SS (Suspended solids)	av.150	min.30	<600	< 200
	max,200	max.150		
рН	5.8~8.6	5 ∼ 9	5~9	6~9
HS (Sulphides)	_	<11		<10
HCN (Cyanide)	<1	<0.2	<1	<2
Oil and Grease	<pre><5 mineral</pre>	<0.5	< 5	<30
	<30 biotic		<30	_
Tar		none		<20
Formaldehyde		<1	_	
Phenols and Cresols	<5	<1	< 5	-
Cl (Free Chlorine)		<1	_	<5
Zn (Zinc)	< 5	< 5	< 5	<10
Cr (Chromium)	<2	<0.5	<2	<2
Cu (Copper)	<3	<1	<3	<1
As (Arsenic)	<0.5	<0.25	<0.5	<2
Cd (Cadmium)	<0.1	<0.03	<0.1	_
Pb (Lead)	<1.	<0.2	<1	-
Ba, Ni (Barium, Nickel)	<u> </u>	<1	-	Ni<2
PCB	_	_	<0.003	_
Tw (Water Temperature)	<45°C	<40°C	<45°C	<45°C
OrgP (Organic Phosphor)	<1	none	<0.005	<30
Hg (Mercury)	none	<0.005	none	-
R-Hg (Alkyl Mercury)	none		none	<10
D.S. (Disolved Solids)		<2000	_	_
Se (Selenium)	-	<0.02	_	_

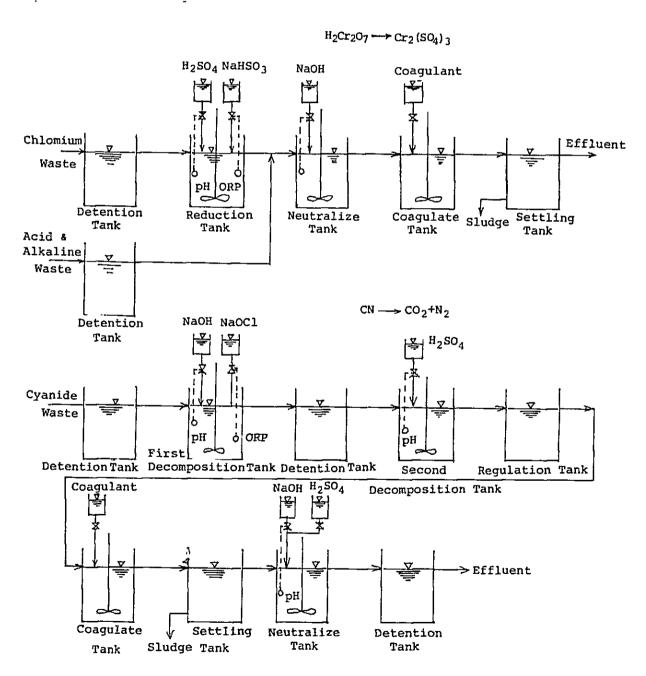
¹, 3 Applicable Effluent Volume over $50m^3$

² MOI settled at 1979

⁴ Recommended by UNIDO Expert

·EXAMPLES OF PRETREATMENT PROCESS,

a) Chromium, Acid, Alkaline, Cyanide Waste Object; Plating Factory

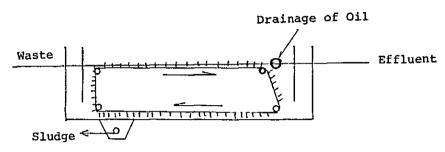


Plating Waste Treatment Flow (Inorganic Reduction Method)

b). 0il

Sludge

Objects; Oil-Chemistry, Machinery, Foods.



Oil Separator (Gravity Method)

c). Suspended Solid (SS)

Objects; Inorganic: Textile, Ceramic
Organic: Food Products

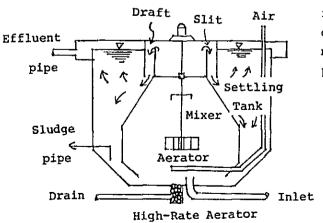
Overflow trap

Sludege Collector

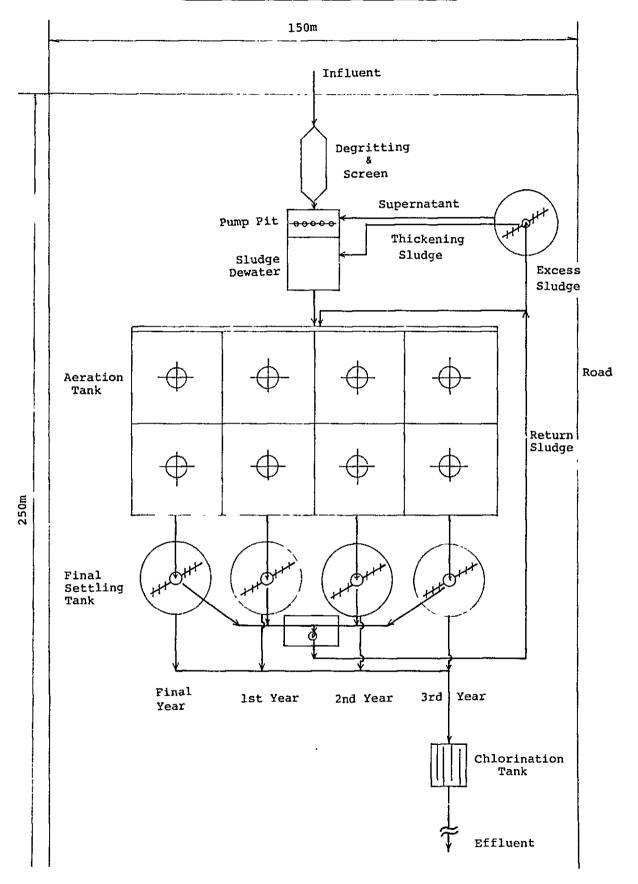
Settling tank

d). Biochemical Oxygen Demand

Object: Food Products



Waste water produced from the Food Industry can often best be treated by means of an activated sludge process.



CONSTRUCTION COST OF THE PLANT

A Unit: Baht 1000

Name	Sec.	Unit Cost	No	Cost	Note
Degritting Tank	s s	OHIE COSE	1	440	Note
Influent Gate	M		1	120	
Motor Drive Screen	М	580	2	1150	
Pump Pit	S		1	440	
Lifting Pump	_M	720	5	3600	18kw x 5 = 90kw/hr
Aeration Tank	S	880	8	7080	$26m^{\square} \times 4m^{H} = 8ponds$
Aerator	M	580	8	4600	$11.25 \text{kw} \times 8 = 90 \text{kw}$
Final Clari- fier	S	880	4	3540	20m ^ø x 3m ^H x 4ponds
Sludge Collector	M	1150	4	4600	5.5kw x 4 = 22kw
Sludge Pump	M	440	5	2210	$18kw \times 5 = 90kw$
Pipe Duct	s		1	1770	
Piping, Valve	M		1	530	
Thickener	s		1	710	16mø x 4m ^{S.W.D.} x 1pond
Sludge Collector	М		1	880	
Sludge Pump	M		1	270	
Belt Press Filter	М	3110	3	10470	30kw x 3 = 90kw
Filter Accessory	M		1	1150	
Chlorinator	S		1	710	$2m^W \times 12m^{\ell} \times 5$ lines
Subtotal	St	ructure 1	4690	Mac	hine 29570
Building Control Room Pumping House Filter House		4420			23mW x 15m ^f x 3m ^H (2nd Fl.) 8mW x 15m ^f x 8m ^H (1st Fl.) 15mW x 15m ^f x 8m ^H (1st Fl.)
Electrical Syst Accept Control Detector Running	em			8850	Running Power 382kw/hr

Total Baht 57530000 S: Structure M: Machine

ANNUAL CONSTRUCTION COST

A Unit: Baht 1000

Name	lst Year	2nd Year	3rd Year	Final Year			
Influent Gate	120	_	_	-			
Motor Drive Screen	1150	-	<u> </u>	-			
Degritting Tank	440	_	-	-			
Lifting Pump	1430	720	720	720			
Pump Pit	440	_	_	-			
Aeration Tank	1770	1770	1770	1770			
Aerator	1150	1150	1150	1150			
Final Clarifier	880	880	880	880			
Sludge Collector	1150	1150	1150	1150			
Sludge Pump	880	440	440	440			
Pipe Duct	880	880	_	_			
Piping, Valve	270	90	90	90			
Thickener	710	_	-	-			
Sludge Collector	880	_	-				
Sludge Pump	270	_	-	-			
Belt Press Filter	4260	3110	3110	-			
Chlorination Tank	710	_	-	-			
Chlorinator	1150	-	-	-			
Building	4430	-	-	-			
Electrical System	4430	4430	-	-			
Sub total	27400	14620	9310	6200			
Total		Baht	57530000				
Running Power	130kw	94kw	94kw	64kw			
Total Running Pow	er	382kw					

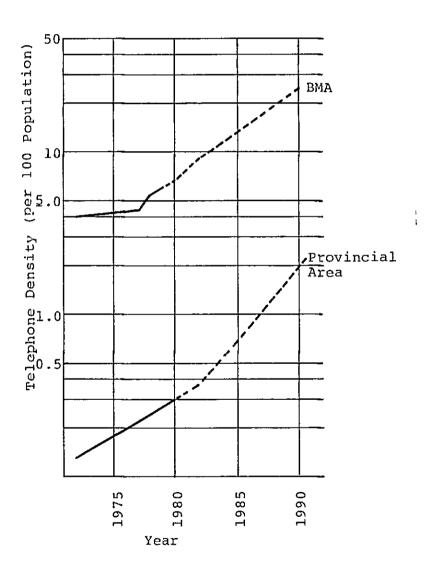
POWER REQUIREMENTS IN BANGKOK

		BANG KUN TIEN (kw/ha)	PHRA PRA DAENG (kw/ha)	PHASI CHAROEN (kw/ha)	RAJA BURANA (kw/ha)	SAMUT SAKHON (kw/ha)	Average (kw/ha)
1.	Textile	17. 937 20. 1880 21. 1875	4. 2344 9. 375 10. 67 12. 625 16. 875 17. 375	14. 500	10. 3906 20. 2272 22. 1250	3. 260 8. 390 11. 446	
		(1564)	(77%)	(500)	(2476)	(365)	(1136)
2.	Metal & Machine	11. 833 14. 625 22. 3012	3. 721 7. 937				
		(1490)	(829)	-			(1159)
3.	Food	13. 446	1. 625	3. 71 9. 208 10. 468 22. 625 23. 267 24. 187	16. 815	6. 45	
		(446)	(625)	(304)	(815)	(45)	(447)
4.	Chemical				11. 4166 21. 1562 23. 1666	2. 82 9. 62 13. 2232 16. 1250	
					(2464)	(986)	(1685)
5.	Rubber		;	12. 218		12. 625 15. 446 17. 1041	
				(218)	<u> </u>	(704)	(461)
6.	Wood & Furniture	12. 178 (178)					(178)
7.	Non metal						
8.	Paper						
9.	Etc.	19. 312					(312)

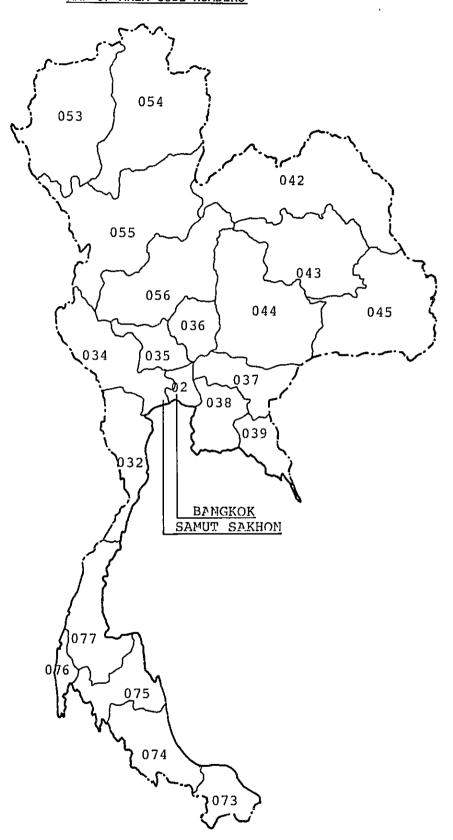
Remarks:

These power requirements are calculated by our interview survey in Thailand.

TELEPHONE DENSITY BY YEAR



MAP OF AREA CODE NUMBERS



MEDIUM ITEM	UNIT: [HIII] HAND BAHTS	8ahTS			_		•
176.	F.L.	9.t.	£ .	,	IAX	a/u	THTAL
MORK SHOP FUILD	0.000	165.624	252.260	571.450	129,260	111.102	1189.792
CONT D	9.940	51.255	164°05	199.440	47.559	55.178	353,720
COME 0	0.សមព	31.444	100.390	27.240	26.550	26.900	272 500
IEAI OFFICF FX WORK	0:0:0	169.661	504.210	おべの。 シャロ	226.345	254.275	2634.970
FS/SFCURITY NFF.	•	54.441	91,427	159.462	44.558	38.042	346.730
CONT	•	11.314	19,860	40,250	11.710	11,306	114.460
SPURTS FIELD/PARK	•	1744,146	542,100	2378, 479	3A0.810	472,610	5474.039
	•	0.000	0.000	0.400	0.000	0.000	0.000
VEHICLES	•	0.000	2076.000	0.000	0.000	0.000	2056.000
COMMERCIAL BUILD	•	404.920	469.020	840.168	241.170	212,182	2148,040
0 L№00		1,24,8971	4 HB . 050	3 59 , 570	119,968	119.502	1191.820
EXTERNAL MIRKS	0.000	562,440	439.672	443.268	196.088	214.568	1896,476
HIGH VOLT LINE		4.14/	0.064	6.077	0.013	0.013	0.245
S/F TYDE A	000.0	125.464	195.452	3-5,824	269°46	P4.834	849.870
(CLND)		41.870	155,540	144 040	43.420	42.020	424.6AD
FXTERNAL		14.47]	49.14]	+0.551	19,363	28,956	256,512
S/F TYDE H		149.340	319.87B	573,640	148,724	126,894	1348,536
(U 1800)	0.00	r1,352	194,407	540.746	65.530	41.445	621.5nn
FXTEGWAL		177,746	110.226	195.972	34.448	47.012	424.490
LOW VOLT LINE	•	9.147	0.037	0.016	0.007	0.007	0,215
TELEPHONE LINE 100P	•	0.147	0.093	660.0	0.017	0.017	0.305
TELEPHINE LINE 2000	0.000	6.147	9.064	0.020	0.012	0,012	0.255
FXCHANGE STATION		04,040	619.500	43,500	109.000	109,000	990.000
FNGINEFRING FOR DZD		6580,000	0.000	0.000	2700.000	12240,000	27550.000
SITE CLEARING		0.160	0.640	0.160	0.160	0,160	1.280
SUPERVISION	58.500	15,700	0.000	0,00	0.000	0,00	74.200
OTHERS.	850,000	3750,000	6407,000	7295, 000	2384.000	2834,000	25920.000

F.L. : Foreign Labour F.M. : Foreign Material O/F : Overhead & Profit D.L. : Domestic Labour D.H. : Domestic Material

MAJOR ITEM UNIT: THOUTHAND BAHTS

TOTAL	25672. 17442. 43114.	2611. 2611.	しっちんしょく ちょうしょ	751A. 895A. 35433.	4037 1566. 14655. 13179. 6395. 6395. 173. 332. 332.	6099 996 7440 7440 8974 865 450 1047 2553
0/P	000	326. 326.	1206 5504 2497 707 707 1148 337	919. 1096. 6408. 8422.	7890 7890 7890 7890 7890 780 780	905. 105. 747. 747. 311. 811. 850.
TAX		326. 326.	1286 25556 2662, 267, 1009, 121,75	1169. 1332. 2474. 4075.	2244. 2659. 1659. 1659. 70. 70. 8937.	801. 125. 919. 771. 771. 25. 65.
. v. a	25672. 17442. 43114.	326. 326.	2241 13125 6205 720 1757 1757 1144 1144	919. 1499. 3191. 5609.	1322 1545 4444 2646 16. 16. 110.	2531. 2480. 2480. 2181. 192. 192. 192. 1260.
π. Ξ	000	1306. 1306.	4169 16073 6793 74 1924 1795 1795 34391	4009. 4432. 2099A. 29439.	1186. 835. 1272. 3501. 863. 14. 12. 93.	1383. 2124. 3128. 2168. 2168. 14.
D.L.	000	326. 326.	1261. 11962. 6036. 41. 1709. 4001. 2336. 5339.	501. 2352. 3463.	634. 104. 759. 2180. 1249. 8. 7. 54.	479. 156. 1151. 117. 1087. 198. 198. 187. 1362.
۴.۱.	000		000000000	• • • • •		
QUANTITY	110N 146.700 1938.000	TION 2040.200	1395.000 5816.000 4125.000 1168.000 3716.000 3194.000	TION 11950.000 6680.000 4.000	410.090 9665.000 1970.000 6575.000 6198.000 20.000 190.000 275.000	8.000 1.000 2.000 1.000 1738.000 1575.000 5353.000
ITEH	1 LAND ACQUISIT LAND ALOMG ROAD LAND SUB TOTAL	2 LAND PREPAHAT SITE CLEARING SUB TOTAL	3 ROAD NETWORK ACCESS/PRIMARY RNAD SECONDARY ROAD TERTIARY ROAD SERVICE, ROAD ROAD IMPROVEMENT MAIN RNAD FEEDER ROAD DUPL. X BOX 5X3.5 BOX 5X3.5	4 FLNON PROTECT DIKE RUND DEWATER PUMP SUB TOTAL	S DRAINAGE SYSTI RRANCH CAANNEL U-DITCH 1.2X1.2 U-DITCH 1.0X1.0 U-DITCH 0.8X0.0 BOX 1.0 X 1.0 BOX 1.0 X 0.0 BOX 0.9 X 0.0 BOX 0.9 X 0.0 BOX 0.9 X 0.0	6 WATER SUPPLY RESERVOIR (RES) RESERVOIR (IND) ELEVATED TANK(RES) ELEVATED TANK(RES) AC PIPE 100 AC PIPE 200

HAJOR ITEM U	UNIT:THOUTHAND BAHTS	BAHTS						
17EM	QUANTITY	F.L.	0,1.	Σ	, r	TAX	0/P	TOTAL
AC PIPE 400 AC PIPE 500	200.000	00	57.	, 6 ,	91,	12.	15.	181,
ACCESSORIES	1.000	0	1	387.	30.	45	157.	621.
DCIP 100	176.000		2	. CG	7.0	13.	15.	122,
DC1 120	112.000	. 0		4 4	27.	. K.	, F	184.
OCIP 300	656.000		220.	587.	254	123	121.	1305.
DC1P 500	140.000	· a	247.	316.	137.	6.5	65.	830.
SUB TOTAL			6622.	8094	12755.	3556.	3744.	34772.
7 SEWAGE SYSTEM								
	875.000	.0	235.	32,	109.	27.	24.	427.
AC PIPE 400	820,000		254.	45.	169.	39.	36.	543.
RC PIPF 500	1240.000	0 0	476.	82,	298.	71.	. 65	993.
מסק המום למ	1405.000		1147	25A,	731.	184	171.	2496.
RC PIPE 1000	280 000		101		. 77.	.00	. E . E	,,007
MISCELLEHIOUS	1.000	.	4 4	. 7	223	115.		. 447.
بر ای	1.000		1366	14082	777	. 0444		27275
TREATMENT PLANT 52	1.000	540	729	7370	7.00	2482	16591	15121
REATHENT PLANT S	1.000	540	465	4510.	1810.	1582	030	. 7 4 6 0
PLANT S	1.000	240	310	2840	1375	1052	620.	6737
SUB TOTAL		1620.	6729	28A00.	13656.	10447.	6321.	67574.
A POWER SUPPLY								
, , ,	11015.000	0	1619.	710.	303.	163.	143	2010
LOW VOLT LINE	2166.000	6	318,	90	35.	16.	16.	404
SUB TOTAL		ċ	1938.	791	338.	159.	159.	3385.
TELEPHONE LINE 100P 34	3595,000	d	52R	416	106	۲,	7	1004
TELEPHONE LINE 200P	4840.000		711.	310.	97.	, ec		1234
EXCHANGE STATION	1.040		69	619	83,	109	109.	990.
SUB TOTAL			1309.	1265.	286,	230.	230,	3321.
10 ADMINISTRATION								
JEAT BUILD		.0	615.	954	1709.	470.	403,	4155.
0 FX0U	1.000		126.	192,	665.	130.	123.	1235.
	1.000		132.	609	203	115.	118.	1175.
מקורה משנה אנורט	000			202	521	129		1190.
CONT	1,000		i m	160	27.	27.		272
IEAT OFFICE EX WORK	1,000	Ċ	770.	504.	680		700	2635
FS/SECURITY OFF.	1.050	ο,	53,	95.	160.	44	3A,	387.
CONT O CHOO	1.000	.	11.	40.	0.7	15,		114.
SPURIO FIREDIPARA	1.000	•	1.40	205	2378,	301.	473.	5474
SUB TOTAL	000.1	• •	3676.	5426.	6783	1572.	1593	19056
				•			•	1
COMMERCIAL BUILD	1,000	.0	305.	469,	881.	241.	212.	210A.

MAJOR ITEM	UNIT: THOUTHAND	BAHTS						
ITEM	QUANTITY	F.L.	۵.د.	Σ	Α.	TAX	0/P	TOTAL
CONT D EXTERNAL WORKS	1.000	,,0	125.	48A.	339.	120.	120.	1192,
SUB TOTAL		0	933.	1457.	1703.	557.	546.	5196
12 STANDARD FACTORIES	TORIES							
S/F TYPE A	24.000	0.	3011,	4681.	9260,	2369.	2036,	21357,
(CONT D)	24.000	0.	1005.	3200,	3937,	1042.	1008.	10192,
EXTERNAL	24,000	.0	1883.	1659.	1453.	465.	696	6156
S/F TYPE B	10.000		1894.	3099	5737.	1487.	1269.	13485,
(CONT D)	10.000	0	613,	1944.	2407,	635.	615.	6215.
EXTERNAL	10.000	0	1278.	1102,	1060.	335,	470	4245
SUB TOTAL		.0	9684.	15686.	23854,	6333.	. 4609	61651.
13 FNGINEFRING SERVICE	SERVICE							
ENGINEERING FOR 0/0	0.6.0	5427	7077	٠0	•	2430.	11016.	25950.
SUPERVISION	64.800	3791.	1017.	0.	٠.		.0	4808.
SUB TOTAL		9218,	8094,	ċ	.0	2430.	11016.	30758.
14 OTHERS	: : :	i	e r e	i	,	ć ć	ř	0
DIMERS SUB TOTAL	0.872	741.	3270.	5936.	6361.	2079.	2471.	20858
GPAND TOTAL		11579.	69110.	127225.	137769.	44758.	51369.	441807.

	TOTAL	4322. 2163. 6485.	333 333	0. 0. 0. 12159. 7765. 1516. 1516.	769. 1635. 6458. 11762.	3846. 3846. 3946. 297.	767. 966. 966. 103. 153. 153. 154. 154.
	0/P	000	42.	0.00.00.00.00.00.00.00.00.00.00.00.00.0	94. 200. 1602. 1496.	60. 67.00. 60. 60. 81. 500.	, 105. 105. 114. 31. 37.7.7.
	TAX	000	42.	0. 0. 0. 1009. 681. 182. 187.	119. 243. 618. 981.	527. 527. 37. 560.	100 125. 86. 25. 25.
		4322. 2163. 6485.	42.	33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	94. 274. 798. 1165.	0. 1591: 0. 0. 0. 1689:	336. 336. 219. 219. 192. 14.
	т. Т.	coc	167.	1787 1787 1787 1787 189 189	404. 804. 5250. 6468.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2773 2774 357 100 114 33
	٥.د.		4.2. 5.2.	246 246 246 246 246 266 266	51. 110. 591. 751.	757. 757. 600.	156. 117. 117. 187. 187. 20.
вантѕ	F.Ł.		0.0		0000	00000000	6566666666
UN T:THOUTHAND BAHTS	GUANTITY	10N 24,700 240,300	10N 260.300	0.00 0.00 0.00 0.00 0.00 3715, 000 1196, 000	1220.000 1220.000 1.000	4 0.000 0.000 0.000 3778.000 0.000 170.000	1,000 1,000 0,000 1,000 778,000 1575,000 173,000
MAJOR LTEM U	ITEM	1 LAND ACGUISITI LAND ALONG RNAD LAND SUR TOTAL	2 LAND PHEPAGATI SITE CLEARING SUB TUTAL	3 POAD NFTWORK ACCESS/PRIMARY ROAN SECUIDARY ROAD TERTIAHY ROAD SERVICE ROAD ROAD IMPROVEMENT MAIN RNAD NURL.X BOX 5X3.5 AUX 5X3	4 FLNOD CONTPOL DIKE HUND DEVATER PUMP SUB TOTAL	5 DRAINAGE SYSTE BRANCH CHANNEL U-DITCH 1.2X1.2 U-DITCH 1.0X1.0 U-DITCH 0.RX0.8 ROX 1.0 X 1.0 BOX 0.8 X 0.8 DIKE SUB TOTAL	6 WATER SUPPLY RESERVOIR (RES) RESERVOIR (IND) ELEVATED TANK(IND) ELEVATED TANK(IND) AC PIPE 150 AC PIPE 200

	TOTAL	0	· .	39,	90	, באנ	• 6	4834		78,	190	400	274.	ċ	- 5	6	ė	6	•	1019.		93.	• ;	. 66		387.	•	387.			· -	•	ċ	.	ċ	· c	c	· o		<u>:</u>	ċ
	0./P	0		4	o c			516.		3	13,	26.	19.	• •	<u>.</u> r	•		•	ċ	. 69		'n	ó	'n		22.	ċ	22.		c		0	•	o,	• •		c	ę.	o c	=	°.
	TAX	0		4	• •			458.		'n	14.	29.	21.	•	:	:		ò	.0	90.		เก๋	ဝ်ဖ	.0		22.	ė.	22.		C	0	o	٠.	٥٠	•	. 0	.0	ć.	. c	•	0
	×	6	- N	i eo	9.		• • •	1771.		20,	62.	120,	8g,		, c			c	0.	304.		10,	0,	.01		37,		37.		G		· c	٥.	. ·	÷ =	c	c	٥.	• •	;	
	τ.	ċ	0	19,	C 0	104		1061.		£	17.	33.	ď.		. 10.	, с		c.	ů,	107.		23.	٥٠	۲,		119.	ċ	119.		G	c	0.0	Ę	ċ	. c	Ġ	c.	0.	• •	•	0
	0.1.	ċ		'n	m c	30.	ć	1033,		43.	93.	192.	126.	•	F		c	۰.	0 !	457.		51.		. 10		187.	ė	187.		ċ.	c	0.	٥.	ċ	÷c		c C	٥.	e e	•	ů
вантѕ	F.L.	6		6	c c	Ċ	,	0				o ·	• •		c		· a	۰,	ď	•		ċ		•		.	ċ			0	0		.	c c	· -	0	٥.		c d	į	0
UN!T:THOUTHAND BAHTS	UUANTITY	0.000	0.100	56.000	000	116.000	0.0			60.	300.000	2	200.002		000	0.00	0.000	0.000	0,00			350,000	0.000			1270.000	0.0.0			00000	0.000	9.000	00000	0.00	000	0.00	0.00	0.000	0.00		4UILD 0.000
MAJOR ITEM UN	ITEM	AC PIPF 400	ACCESSORIES	DCIP 100	05.5	DC1P 300	0C1P 500	SUB TOTAL	7 SEWAGE SYSTEM	RC P1PF 300	AC PIPE 400	AC PIPE 500	מים שוני עס	מסטר חסום רס	MISCELLERIOUS	TREATMENT PLANT SI	TREATHENT PLANT 52	TREATHENT PLANT 53	TREATMENT PLANT 54	SUB TUTAL	8 POWER SUPPLY	HIGH VOLT LINE	COW VOLI LINE	34	9 TEKECOMMINICATION	TELEPHONE LINE 100P	IELEPHUNE LINE ZOOP FYCHANGE STATION	SUB TOTAL	10 ADMINISTRATION	IEAT BUILD	CONT D	C04T 0	WORK SHOP HUILD	2 1200	JEAT OFFICE FX MORK	FS/SECHRITY OFF.	CONTO	SPORTS FIELD/PARK	VEHICLES SUB TOTAL	31.000	11 COMMERCIAL P

MAJOR ITEM	UNIT:THOUTHAND BAHIS	RAHTS						
ITFM	OUANTITY	F.L.	١.٠.	ž.	. Μ. Cl	TAX	9/0	TOTAL
CONT D EXTERNAL WORKS SUR TUTAL	0.000			 			000	ccc
12 STANDAPO FACTURIFS S/F TYPE A (CONT D) EXTERNAL S/F TYPE B (CONT D) EXTERNAL SIR TYPE	CTURIFS 0.000 0.000 0.000 0.000 0.000 0.000	2222626	0000000			0000000	500000	
13 FNGINEFRING SERVICE ENGINEFRING FOR D/D SUPERVISION SUB TOTAL	SERVICE 0.100	603, 421, 1024,	603. 113. 716.	200	666	270. 0. 270.	1224. 1224.	2700. 534. 3234.
14 OTHERS OTHERS SUB TOTAL	0.128	169.	480.	я71. 871.	934,	305.	363.	3062.
GAAND TOTAL		1133,	11094.	14089.	18685.	4598.	6698.	56297.

COST FOR INDUSTRIAL AREA

MAJOR ITEM UNIT: THOUTHAND BAHTS

ITEH	QUANTITY	F.L.	0.1.	ή. Έ.	D, #,	TAX	d/Ü	TOTAL
1 LAND ACGUISIT LAND ALONG ROAD LAND SUB TOTAL	SITION 122,000 1697,700		 	o c c	21350. 15279. 36629.	000	• • •	21350. 15279. 36629.
2 LÅND PREPARAT SITE CLEARÍNG SUB TOTAL	ARATION 1779,900	00	285. 285.	1139.	285. 285.	285. 285.	285. 285.	2278. 2278.
3 ROAD NETWORK ACCESS/PRIMARY ROAD SECONDARY ROAD TERTIARY ROAD SERVICE ROAD ROAD IMPROVEMENT MAIN ROAD PEEDER RNAD DUPL.X BOX 5X3.5 BOX 5X3 SUB TOTAL	1395,000 5816,000 4125,000 1168,000 0,000 50,000 25,000		1261. 11962. 6036. 1709. 1709. 299. 21380.	4169. 16073. 6793. 74. 1924. 0 0. 543. 137.	2241, 13125, 6205, 1757, 1757, 0, 638, 154,	1286 5556 2462 24 697 697 10308	1206. 5504. 2497. 707. 0. 187. 10174.	10164 52020 23020 23020 6704 6704 1800 1896 9574
4 FLOOD PROTECT DIKE RUND DEWATER PUMP SUB TOTAL	ECTION 10736.000 5460.000 3.000	3500	450. 490. 1772. 2712.	3620. 3622. 15749. 22971.	825. 1226. 2393. 4444.	1050. 1089. 1855.	825. 896. 4806. 6527.	6750. 7322. 26575. 40647.
5 DRAINAGE SYST BRANCH CHANNEL. U-DITCH 1.2X1.2 U-DITCH 1.0X1.0 U-DITCH 0.8X0.6 BOX 1.2 X 1.2 BOX 1.2 X 1.0 BOX 1.0 X 1.0 BOX 0.8 X 0.6 DIKE SUB TOTAL .	STEM 410.000 9665.000 1965.000 6575.000 2470.000 20.000 20.000 20.000 275.000		634 21854. 21854. 498. 77. 70.	1188. 1272. 1272. 3501. 336. 14. 17. 17.	1322 15451 15451 1054 1054 116	490. 244. 588. 1659. 349. 6. 7. 27.	403. 1971. 1390. 311. 5. 4. 21. 2822.	4037. 1566. 13179. 2548. 50. 51. 173.
DEEP WELL RESERVOIR (RES) RESERVOIR (IND) RESERVOIR (IND) RECVATED TANK(IND) AC PIPE 100 AC PIPE 250	7.600 2.000 2.000 9.000 9.000 9.000 9.000 51.00 51.00 61.000	6000000000	419. 1151. 1061. 109. 352. 810.	1210. 2126. 2126. 2188. 5. 5. 117.	2215. 2480. 2480. 2181. 67. 67. 1220. 1689.	701. 919. 771. 99. 63.	792. 762. 747. 12. 197.	5337. 7440. 69740. 202. 1018.

TOTAL	181 280. 859. 83. 141. 1074. 29933.	349. 344. 592. 2221. 2687. 747. 607. 15121. 9737. 6655.	2826. 466. 3292.	1234. 990. 2933. 4155.	1235. 1176. 1190. 354. 272. 2635.	114. 5474: 2056. 19049. 2108.	!
0/P	122 141 141 140 130 130 130 130 130 130 130 130 130 13	20. 39. 152. 173. 645. 6731. 1458. 620.	139. 15. 155.	2009; 2009; 4009;	201111 201111 2011111111111111111111111	473. 473. 1593. 212.	i t t
TAX	12. 19. 38. 9. 101. 101. 3098.	22. 25. 168. 103. 2482. 1052. 1052.	139. 16.	58. 109. 208. 470.	130 115 129 37 226 44	381. 381. 1572. 241.	!
о.н.	91. 145. 16. 16. 27. 207. 207. 137.	89. 1707. 1707. 1707. 722. 195. 200. 5484. 1815. 1375.	293, 325, 328,	97; 83; 249, 1709.	665. 5203. 199. 880.	2378. 2378. 6783. 881.	
я. Я.	3 10. 3 48. 40. 0 0. 0 484. 7034.	26, 29, 49, 277, 277, 13083, 7370, 4510, 2840,	688. 80. 768.	310; 510; 619; 1147; 958;	2000 W W W W W W W W W W W W W W W W W W	5002. 2002. 5426. 5426. 469.	!
0.6.	57, 83, 10, 10, 181, 181, 5589,	192. 192. 1961. 1921. 1322. 391. 1366. 729. 729. 810.	1568. 318. 1886.	711. 711. 1122. 615.	1226. 1866. 1866. 1870.	1740. 3676. 305.	• • •
F,L.	00000000	WW W & 44 W W & 4 4 4 4 4 4 4 4 4 4 4 4			0000000		•
QUANTITY	200,000 200,000 120,000 112,000 540,000	215.000 220.000 2105.000 1495.000 280.000 1.000 1.000 1.000	1665.00	1,000	11111111111111111111111111111111111111		! ! !
ITEM	AC PIPE 400 AC PIPE 500 ACCESSRRES DCIP 100 DCIP 150 DCIP 300 DCIP 300 DCIP 500 DCIP 500	RC PIPE 300 RC PIPE 300 RC PIPE 400 RC PIPE 500 RC PIPE 600 RC PIPE 800 RC PIPE R00 RC PIP	B POWER SUPPLY HIGH VOLT LINE LOW VOLT LINE SUB TOTAL 9 TELECOMMUNICATION TELECOMMUNICATION	TELEPHONE LINE 200P EXCHANGE STATION SUB TOTAL 10 ADMINISTRATION IEAT BUILD	CONT D CONT D HORK SHOP BUILD CONT D CONT D IEAT OFFICE EX WORK FS/SECURITY OFF.	SPORTS FIELD/PARK VEHICLES SUB TOTAL 11 COMMERCIAL BUILD COMMERCIAL BUILD	

MAJOR I FEM	UNIT:THOUTHAND MAMIS	HAHIS						
E 100	RUANTITY	я. L.	0.1.	٠ ٤ س		TAX	ű/Ρ	TUTAL
CONT D EXTERNAL WORKS SUB TOTAL	1.000		125. 503. 933.	488. 500. 1457.	339. 483. 1703.	120. 196. 557.	120. 215. 546.	1192. 1896. 5196.
12 STANDARD FACTORIFS S/F TYPE A (CONT D) EXTERNAL S/F TYPE B (CONT D) EXTERNAL SUB TOTAL	24,000 24,000 24,000 74,000 10,000 10,000		3011. 1005. 1843. 1894. 613. 1274.	4681. 3200. 1659. 3099. 1944. 1102.	9260. 3937. 1453. 5737. 2407. 1060.	2369. 1042. 465. 1487. 635. 335.	2036. 1008. 696. 1269. 615. 470.	21357. 10192. 6154. 13485. 6215. 4245.
13 FNGINEERING SERVICE ENGINEFRING FOR D/D 1 SUPERVISION 72 SUB TOTAL	SERVICE 1.000 72,000	6030. 4212. 10242.	7680. 1130. 881n.	ccc	000	2700; 0. 2700.	12240. 0. 12240.	28650, 5342, 33992,
14 OTHERS OTHERS SUB TOTAL	1.000	850. 850.	3750. 3750.	6807. 6807.	7295. 7295.	2384.	2834, 2834,	23920. 23920.
GPAND TOTAL		12712.	н0204.	141312.	156454.	49356,	58067.	498104.

THE QUALIFICATION OF MANAGEMENT ADVISOR

1. Number of Staff

1 person

2. Term

1982.1 - 1982.12 (1 year)

3. Qualification

An economist with considerable experience in the operation of industrial estates

4. Duty Station

IEAT Office

5. Assignment

- To assess the state of the management and operation of the SIE Project and to grasp and analyze any problems that may exist in connection therewith.
- 2) To advise and assist the SIE Estate Manager and staff in the performance of their day-to-day jobs.
- 3) To give advice on standard factory design, the selection of appropriate industries and enterprises.

THE QUALIFICATION OF TECHNICAL ADVISOR

1. Number of Staff

l person

2. Term

1982.1 - 1982.12 (1 year)

3. Quarification

Environmental and sewage treatment specialist

4. Duty Station

IEAT Office

5. Job

His job is to advice about next items:

- 1) Technique of industrial waste water investigation
- 2) Investigation of waste water treatment mechanics and techniques
- 3) Analytical techniques of water quarity and biological feature
- 4) Technique of the data arrange, analysis and keeping

INCOME STATEMENT 1980 - 1989 (1)

			INCOME	INCOME STATEMENT	111		1000	BAPT			1
	1980	1981	1982	1983	1984	1985	9861	1987	1988	. 5861	
•	1						t	ı	1		
REVENUE	0.	6	178183.	227056.	124330.	67400.	40267.	51302.	62337.	73372.	
LAND SALES	Ü	0	178183.	227056+	122257	47954.	0	-6	6		
LAND LFASED	•		0	0	2073	4147.	4147	4147	4147	4147	
FACTORY & COMMERCIAL RENTALS	ó				0	9786.	19572	15572	15572	19572	
MAINTENANCE & SERVICE CHARGE		ö	ċ	6		383.	1158.	1933.	2708.	3483	
WATER SUPPLY & SEWAGE DISPOSAL	0.	0	0.	0.	0.	5130.	15350.	25650.	35910.	46170.	i
COST	423.	650.	14427-	27453.	28527.	26699.	62478.	11275.	B0053.	85010*	
OPFRATING COST	423.	423.	1751.	2619-	3466.	9316.	19248.	25257.	39266.	49275.	
1 5 2 1	225.	235	204	11.77	1658	2130	7 2 5 5	7355	1266		:
	186.	1881	545	275	13.18	1696	1886		1 4 4	7881	
PROMOTION	ā	0	500	500	500	500.	0	0	0		
REPAIR & MAINTENANCE Mater & Sewage	::	••	••	383.	1158.	1933.	32219.	3483.	
INTEREST	0	227.	4219.	Ĭ425ď.	19169.	15037.	11684.	10473.	92B2.	<u></u>	
THE THE TOTAL TROPERSON OF THE TRANSPORT		466	000	1000		0000			13		
ON LONG TERM FORFIGN OFFIT	ċ	- 72	005	33060	- 6	7800	-22501	10374	*7875	.0518	
	io	6	3239.	10347.	11382.	5237.	1062.	*55	ó		
(LESS) ON DEPOSIT	0	O	0	ני	0	0	9.	0		•	1
DEPRECIATION	0	0	0	ບ	0	0	31545.	21545.	31545.	31545.	
LAND SO	0	0.	8457.	10584.	5892.	2346.	0	.0		0.0	
INCOME BEFORE TAX	-423.	-650.	163756.	199603	95803.	40701.	-22210.	_15973.	-17756.	-15638.	ļ
SS) COMMERCIAL & LCCAL T	0	•0	6860.	8742.	4707.	1846.	0	0.	.0	9.	
INCOME AFTER TAX	-423-	-059-	156895.	150861.	91036.	36855.	-22210.	-15973.	-17756.	-15638.	
-	ċ	-0	0	0	0	ō	0	0	0.	. O	i
AFTER TAX 6 DIV	-423.	-650.	156895.	190861.	91096.	38855.	-22210.	-15973.	-17756.	-15638-	
CUHURATIVE	-423.	-1073.	155822-	346683.	437779.	476634.	454424.	434451.	419654.	401056.	
TIO (BEFORE TAX) T	0	0	-55	88.	17.	,09	-55.		-28.	-21.	i
O (AFTER TAX) \$	o	0	88.	. 84.	73.	58.	-55.	-36-	-28.	-21.	
BREAK EVEN POINT	0.	<u>.</u>	8	12.	.62	34.	190.	.771	166.	156.	

INCOME STATEMENT 1990 - 1994 (2)

	1	:	INCOME	STATEMENT	(23,	1900 UAFT
	1990	1661	1992	1993	1994	
REYENUE	78886.	78888.	78888.	78888	78888.	
LAND SALES LAND SALES LAND LEASED FACTORY & COMMERCIAL RENTALS MAINTENANCE & SERVICE CHARGE MATER SUPPLY & SEMAGE DISPOSAL	4147. 19572. 3869.	4147. 19572. 3869. 51300.	4147. 19572. 3869. 51300.	4147. 19572. 3869.	4147. 19572. 3869. 51300.	
COST	92921.	83514.	82422.	81330	80238	
OPERATING COST	54278	54278.	54278.	54278.	54278.	
SALARIES E WAGES ADMINISTRATION PROMOTION	2355. 1884. 0.	2355.	_2355. 1884. 0.	2355- 1884-	2355.	
REPAIR E MAINTENANCE Mater & Sevage	3869.	3869.	3869.	3869.	3869.	
INTEREST	7058.	6006.	4614.	3822.	2730.	* *** ** *** *** **** **** **** ***** ****
1004	7098.	9009	4914.	3822. 0. 0.	2730. 0. 0. 0.	
DEPRECIATION	31545.	23230.	23230	23230.	23230.	
COST OF LAND SOLD	• 0	•	0	Ü	0	
INCOME BEFORE TAX	-14033.	-4626.	-3534.	-2442-	-1350.	
(LESS) COMPERCIAL & LCCAL TAX	0	0.	0	0	0	
INCOME AFTER TAX	-14033.	-4626.	-3534-	-2445-	-1350.	1
1 DIVIDEND	,0	0	e .	Đ	6	
INCOME AFTER TAX & DIVIDEND	-14033-	-4626.	-3534.	-2445-	-1350-	
TIVE	387023.	382397.	378864.	376422	375072.	,
PROFIT RATIO (BEFORE TAX) T	-18.	-9-	•	·E-	-2.	
RATIO	-18.	-6.	-4-	-E-		
BREAK EVEN POINT	149.	116.	112-	109.	105.	* * * * * * * * * * * * * * * * * * * *

1989 (1
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1980
STATEMENT
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FLOW
CASH

	1989	15907.	15907.	15638.			0.0	0.0	0		31200.	31200.	0	0000	0.	9.	-15253.	182740.	167447.	0.61
	1988	13789.	13789.	-1775¢. 31545.		300	6	ė.	6	1700	31200.	31200.	0.	0000	.0	0.	-17431.	200151.	182740.	0.57
1000 BAPT	1981	12892.	11572.	119972	6	000	1320.	.a	-0	32520.	31206.	31200.	0	00000	0.	1320-	-19628.	219779.	200151.	0.52
1000	1986	37852.	9335.	-22210. 31545.	17000.	17000.	11517.	9.	.0	22251.		.00	10740.	10740.	.0	11517.	15595.	204184.	219779.	1.80
	1985	115349.	41201.	38855. 0. 2346.	30000.	30000.	44148.	0.	0.	95412.	0	30	51264.	14730. 35685. 849.	-0	44148.	19938.	184247.	204184.	3.86
. 1)	1984	219778.	96988.	91096.	85000.	85220.	37790.	0.	0	234508.	o		196718.	139271. 54159. 3288.	0	17790.	-14730.	198976-	184247.	6.31
STATFMENT	1983	390032.	201445.	190861. 0. 10584.	137000-	137900.	0.	51586.		321946.	.0		270360.	234825. 32445. 3090.	51586.	0	68085.	130891.	194976.	15.75
CASH FLOW STATFYENT	1982	238541.	165352.	156495. 0. 8457.	30000-	30000°.	0.	43188.	0	108427.	0.		£52ªB.	24726. 0. 10628. 29884.	43188.	°0	130114.	777.	130691.	41.82
J	1981	22350.	-650.	.0 .0 .0	23000.	15000. 13000.	c		0,	23723.	ن٠	• •	23723.	6. 0. 0. 23723.	0.	Ö	-1373.	2151.	177.	-1.86
	1980	49577.	-423.	-423. 0. 0.	50000	\$0000 0.0	0.	O,	0	47426.	O.	66	47426.	47426. 0. 0. 0.	0.	0	2151.		2151.	0.0
		SAURCES OF CASH	CASH GENERATED FROM DPERATION	INCOME AFTER TAX C DIVIDEND DEPRECIATION LAND SOLD AT COST	FINANCIAL RESGUACES	COVERNIENT CONTRIBUTION LONG TERM FOREIGN DERT LONG TERM FOREIGN DERT	ı '	INCREASE IN OPERATING FUND	PAYHENT BY DIHER STAGES	TINS OF CASH	AYMENT OF LONG TERM DEBT	FOREIGN DERT (*)	INVESTMENT IN FIXED ASSET	LAND DEVELOPMENT LAND DEVELOPMENT BUILDING ENGINEERING C. ARCH. SERVICE OTHERS	INCREASE IN YORTGAGE RECEIVABLE		CASH SURPLUS	REGINAING CASH BALANCE	ENOING CASH RALANCE	OFBT-SFRVICE COVERAGE T

		•	CASH FLOW STATEMENT	STATEMENT	[2]	1000 H&FT
	1990	1961	1942	1093	1 494	
SOURCES OF CASH	17512.	18604.	19696.	20788.	21880.	
CASH GENERATED FROM OPERATION	17512.	19604.	19656.	20788.	21880.	
INCOME AFTER TAX & DIVIDEND DEPRECIATION LAND SOLF AT CAST	-1403a. 31545.	23230. 0.	-3534 23230. 0.	2442- 27270. 0.	-1350. 27270.	
FINANCIAL RESCURCES	0	0	0	0	o	
GOVERNMENT CONTRIBUTION LONG TERM FORCIGN DERT LONG TERM FORCIGN DERT	000		000		000	
PECREASE IN HORTGAGE RECEIVABLE	0	0.	0.	0.		
INCREASE IN OPERATING FUND	9.	.0	0.	0.	0.	
PAYMENT RY OTHER STAGES	9.	0	ò		0,	
APPLICATIONS OF CASH	31200.	31200.	31200.	31200.	31200.	
REPAYMENT OF LONG TERM DEBT	31200-	31,200.	31200.	31200-	31200.	
FOREIGN DERT (+)	31200.	31200.	31200.	31200.	31200.	
INVESTMENT IN FIXED ASSET	-0	0.0	0			
LAND AQUISTIAN	0	0.	0.		0.	
LAND DEVELOPMENT	ò	ė	•	ė	ċ	
ENGINEERING C ARCH. SFRVICE	500			566	i i c	
INCRESSE IN MORTGAGE PECETVARLE	.0	0	0.	9	.0	
DECREASE IN APERATING FUND	0	0.	9.	b	٥.	
CASH, SURPLUS	-13688-	-12596.	-11504.	-10415-	-5320.	
BEGINNING CASH BALANCE	167447.	153759.	141163.	129659.	119247.	
ENDING CASH BALANCE	153759.	141163.	129659.	119247	109527.	

BALANCE SHEET 1980 - 1989 (1)

** CASF 1 - 0 **

			BALANCE SHFFT	SHEET (-		1000 BAHT	+		
	1980	1981	1982	1983	1984	1985	1986	1981	1988	1985
ASSETS	49577.	71926.	302010.	681458.	819764.	844471.	827743.	775250.	726294.	679456.
CURRENT ASSETS	2151.	177.	174080.	293751.	241231.	217021.	221098.	200151.	182740-	167447.
CASH & DEPOSITS MORTGAGE PECEIVABLE	2151.	.0.	130891.	198976.	184247.	204184.	219779.	200151.	182740.	167447.
FIXED ASSETS	47426.	71149.	127931.	387707.	578533.	627450	606645.	575100.	543555	512010-
LAND	47426.	47426.	72153.	306977.	446248.	460978.	471719.	471719.	471719-	471719.
BUILDING Engineering 6 arch, Service	• ·	23723.	34351.	32445	86605.	122289.	122289.	122289.	122289.	41577-
		ċ	29884	29884.	25334.	29884.	29884	29884	29884	29884
		•••	8457.	14041.	24933.	27275.	27279.	27279.	27279.	27279.
	40		9	0-1	0.	0.	0	0-	•	0
LIAGILITIFS & EQUITIES	49577.	71927.	302010-	681458.	819764.	844471.	827743.	115251.	726294	679456.
LIABILITIES	•0	13000.	86188.	274775.	321985.	307837.	313320.	280800.	249600.	218400.
CURRENT LIABILITIES	0	0.0	43188-	94775.	56585*	12837.	32520.	21200-	31200.	31200.
FORFIGN OF ST (*) MATURING		ď		ó		å	0.715	0.021	0.00	0.00
SHORT TERM DEBT FIXED LIABILITIES	• •	13000.	43188.	180000.	26585.	12837.	1320.	249600.	218400	187200.
LONG TERM FORFIGN DEBT LONG TERM FORFIGN DEBT (*)	<u>.</u> .	130-0.	430C0.	189000.	2650r0. 0.	,0005ec	280800.	247600.	218400.	187200. 0.
EOUITIES	49577.	58927.	215822.	406683.	497779.	536634.	514424	494451-	476694.	461056.
GOVERNMENT CONTRIBUTION RETAINEN FARNINGS	50000-	60000. -1073.	60000. 155822.	60000° 346683.	60000.	60000. 476634.	60000.	£0000. 434451.	60000.	60000 401056.
CURRENT PATIT	0.	0.	403.	310.	423.	1691	680.	645	566.	537.
DERT EQUITY PATIN X	2.0	22.	*0*	68.	65.	57.	61.	57.	52-	47.

			BALANCE SHEET	-	2 }	100
1	1990	1991	1092	1003	1994	
ASSETS	634223.	.796393	563664.	530625	497472•	
CURRENT ASSETS	153759.	141163.	129659.	119247.	10°927.	
CAGF	153759.	141163.	129659.	119247.	105927.	
FIXED ASSFTS	480464	457235.	434005.	410775.	187546.	
LAND	471719.	471719.	471719.	471715.	471719.	
BUILDING	122289	1222A9.	122289.	122285.	122289.	
OTHERS	41577.	41577.	41577.	41577.	41577.	
Ę.	157726.	180955.	204185.	727415-	250644.	
(LESS) COST OF LANG SOLD (LESS) TPINSFER TO DIHERS	.0 0.	27279.	21279.	27279.	27279.	
LIABILITIES & POUTTIES	634223-	5983c7.	563664.	530022	497472.	
LIABILITIFS	187200.	156000.	124800.	53600.	62400.	
CURRENT LIABILITIES	1200-	31200.	31200.	31200.	0.	
	31200.	31200-	31200.	31200.	•	
SHORT TERM DEBT	o c	66	0 0		0 0	
FIXED LIABILITIES	156000.	124800.	93600	62400-	62400	
1G TERM F.	156000. 0.	12480C.	.00966	6240C.	62400. 0.	
EQUITIES	447023.	442397.	438864	436422-	435072.	
GOVERNMENT CONTATOUTION RETAINED FARNINGS	60500. 387023.	60000. 382357.	£6000.	60000. 376422.	60000. 375072.	
CURRENT PATIO	*64	452•	416.	382.	o	
DEBT EQUITY RATIO #	45.	*9£	-82	21.	14.	

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VEAR COSTILI REVENUE(II) OPE-CIAXII) BENEFIT(II) DIS-RATIGITI B-/C RATIGILI TILE 1981								
23722.9 10.0 423.0 423.0 10.0 6 11.136 27322.9 17.0 10.0 1423.0 423.0 1423.0 2 11.136 27322.9 17.0 12.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15	YEAR	COST(11)	REVENUE(1)	OPE. CTAX(1)	_	OIS-RATIO(I)	1	NET PV(1)
20142.9 178182.7 1781	1980	47426.5	0.0	423.0	-423.0		1,136	87575-8
20328.3 178182.7 1751.0 159551.6 3 11.09E 20328.3 178182.7 2019.0 156551.1 6 1.00E 196718.1 124330.2 2466.0 116157.3 6 1.00E 1046.1 10246.2 22045.0 6 1.0551 10746.1 1022.2 22957.2 22045.0 8 1.025 0.0 6237.1 22045.0 8 1.025 0.0 73371.9 4275.0 2406.9 10 1.022 0.0 73888.1 54278.1 24610.0 11 0.99E 0.0 78888.1 64278.1 24610.0 11 0.99E 0.0 78888.1 64278.1 24610.0 12 0.99E 0.0 78888.1	1981	6.22152	9 1	423.0	-423.0	2	1.116	72563.1
100 100	7951	0.0000	1.281811	1751.0	169571.6	m	1.098	59333.8
104618.1 124330.2 3466.0 116157.3 5 11.065 10746.1 10245.3 19316.4 56237.7 6 11.055 10746.1 10246.3 19316.4 21019.0 7 11.025 0.0 6237.1 22645.0 8 1.025 0.0 73371.9 4275.0 24066.9 10 1.025 0.0 73371.9 4275.1 24610.0 112 0.992 0.0 78888.1 54278.1 24610.0 113 0.942 0.0 78888.1 54278.1 24610.0 114 0.942 0.0 78888.1 54278.1 24610.0 115 0.942 0.0 78888.1 54278.1 24610.0 115 0.942 0.0 78888.1 54278.1 24610.0 115 0.942 0.0 935	1983	2 (0300-3	22/055./	2619.0			1.081	47662.1
985 1265.5 67400.3 19316.4 56237.7 6 1.051 986 1074.1 40261.3 19316.4 56205.0 7 1.037 987 0.0 6 51302.2 29557.2 22056.1 1 10.037 988 0.0 7888.1 54278.1 24610.0 112 0.952 990 0.0 7888.1 54278.1 24610.0 112 0.952 991 0.0 7888.1 54278.1 24610.0 114 0.952 992 0.0 7888.1 54278.1 24610.0 115 0.952 993 0.0 7888.1 54278.1 24610.0 115 0.952 994 0.0 7888.1 54278.1 24610.0 115 0.952 995 0.0 995 0.952 995 0.0 7888.1 54278.1 24610.0 115 0.952 995 0.0 995 0.952 996 0.0 995 0.952 997 0.0 995 0.952 998 0.0 995 0.952 999 0.0 995 0.952 999 0.0 995 0.952 999 0.0 995 0.0 995 999 0.0 995 999 0.0 995 0.0 995 999 0.0 995 0.0 995 999 0.0 995 0.0 995 999 0.0 995 0.0 995 999 0.0 995 0.0 995 999 0.0 995 0.0 995 999 0.0	1984	196718.1	124330.2	3466+0		! !	1.065	37354.1
906 1074-1 40267-3 10278-3 21019-0 7 1 1071 917 0-0 623371 23254-2 22045-0 10 1072 918 0-0 73371-9 43254-1 23071-0 9 1-012 919 0-0 78888-1 53278-1 24610-0 11 0 0.972 922 0-0 78888-1 53278-1 24610-0 11 0 0.972 934 0-0 78888-1 53278-1 24610-0 11 0 0.972 935 0-0 78888-1 53278-1 24610-0 11 0 0.972 936 0-0 78888-1 53278-1 24610-0 11 0 0.972 937 0-0 78888-1 53278-1 24610-0 11 0 0.972 938 0-0 78888-1 53278-1 24610-0 11 0 0.972 939 0-0 78888-1 53278-1 24610-0 11 0 0.972 94 0-0 952 95 0-0	1985	5126	67400.3	9316.4	56237.7	4	150	0 07686
998 C.0 6233771 2325.7 22045.0 8 1.022 999 O.0 733771 9325.1 22045.0 10 1.002 999 O.0 733771 9325.1 24010.0 11 0.992 990 O.0 78888.1 54778.1 24610.0 11 0.992 991 O.0 78888.1 54778.1 24610.0 11 0.992 992 O.0 78888.1 54778.1 24610.0 11 0.992 993 O.0 78888.1 54778.1 24610.0 11 0.992 994 O.0 78888.1 54778.1 24610.0 11 0.992 995 O.0 916 995 O.0 916 996 O.0 916 997 O.0 916 998 O.0 916 999 O.0 917 999 O.0 917	1986	10740.1	40267.3	19248.2	0.01010	7	100	
990 0.0 62337.1 3926.1 2207.0 9 1.0127 989 0.0 73371.9 3926.1 2207.0 10 0.592 990 0.0 78888.1 54278.1 24610.0 11 0.592 992 0.0 78888.1 54278.1 24610.0 11 0.592 993 0.0 78888.1 54278.1 24610.0 11 0.592 994 0.0 78888.1 54278.1 24610.0 11 0.592 995 0.0 78888.1 54278.1 24610.0 11 0.592 995 0.0 78888.1 54278.1 24610.0 11 0.597 996 0.0 78888.1 54278.1 24610.0 11 0.597 997 0.0 78888.1 64278.1 24610.0 11 0.597 998 0.0 972 999 0.0 972 999 0.0 972 999 0.0 972 999 0.0 972 990 0.0	1007	0-0	51302.2	0.7900	22045	- c	160.1	1.61102
990 0.0 73371.9 4275.0 24054.0 10 1 1.007 991 0.0 7888.1 54278.1 24410.0 11 0.972 992 0.0 7888.1 54278.1 24410.0 13 0.972 993 0.0 7888.1 54278.1 24410.0 13 0.972 994 0.0 7888.1 54278.1 24410.0 13 0.972 995 0.0 995 0.0 995 996 0.0 7888.1 54278.1 24610.0 13 0.972 997 0.0 995 998 0.0 995 999 0.0 995 999 0.0 995 999 0.0 995 999 0.0 995 999 0.0 995 990 0.972 990 0.972 990 0.972 990 0.972 990 0.972 990 0.972 990 0.972 990 0.972 990 0.972	0001		4 25567	79000	0.04044	י פ	170.T	13032.2
990 0.0 7888.1 54278.1 24610.0 11 0.992 991 0.0 78888.1 54278.1 24610.0 12 992 0.0 78888.1 54278.1 24610.0 12 993 0.0 78888.1 54278.1 24610.0 14 994 0.992 995 0.0 78888.1 54278.1 24610.0 14 995 0.992 995 0.0 995 0.992 996 0.992 997 0.992 998 0.992 999 0.992	1989	0.0	73371.9	49275	0.11062		1.013	6659.9
990 0.0 78888.1 54278.1 24610.0 11 0.592 992 0.0 78888.1 54278.1 24610.0 13 0.982 993 0.0 78888.1 54278.1 24610.0 14 0.965 994 0.0 78888.1 54278.1 24610.0 15 0.945 995 0.0 78888.1 54278.1 24610.0 15 0.945 996 0.992 997 0.0 78888.1 54278.1 24610.0 15 0.942 998 0.992 999 0.0 0.0 78888.1 54278.1 24610.0 15 0.942 999 0.992 999 0.0 0.992 999 0.0 0.992 999 0.992						2	200-1	1-1001
991 0.0 78888.1 54278.1 24610.0 12 0.972 992 0.0 78888.1 54278.1 24610.0 13 0.972 994 0.0 78888.1 54278.1 24610.0 14 0.972 995 0.0 78888.1 54278.1 24610.0 15 0.972 995 0.0 78888.1 54278.1 24610.0 14 0.972 996 0.992 997 0.0 78888.1 54278.1 24610.0 14 0.972 998 0.992 999 0.0 78888.1 54278.1 24610.0 14 0.972 999 0.992 999 0.0 991 999 0.0 991 999 0.992	1990	0.0	78888.1	54278.1	24610.0	11	0.992	-3908-2
992 0.0 78886.1 54278.1 24610.0 13 0.972 993 994 995 995 995 995 995 995 995 995 995	1661	0.0	78888.1	54278-1	24610.0	12	0.582	-8341.2
193 0.0 78888.1 54278.1 24610.0 15 0.965 194 0.957 195 0.957 196 0.957 197 0.932 20 0.932 20 0.916 21 0.916 22 0.905 23 0.905 24 0.890 25 0.880 28 0.881 28 0.871 29 0.872	1992	D*0	78886.1	. 54278.1	24610.0	13	0.972	-12282.8
194 7.0 7888.1 54278.1 24610.0 15 0.957 10 0.946 11 0.946 12 0.946 13 0.942 14 0.922 15 0.916 16 0.942 17 0.942 18 0.922 18 0.911 19 0.922 20 0.916 21 0.916 22 0.900 23 0.900 24 0.889 28 0.889 29 0.881 29 0.881	1993	0.0	78888.1	54278.1	24610.0		20000	-15785.8
NTERNAL RATE OF RETURN = 10.3 % REMAINDER = -442.66406	1994	0.0	78888.1	54278.1	24610.0		0.957	-18912.1
NTERNAL RATE OF RETURN = 10.3 % REMAINDER = -442.66406						41	370	- 6.563
IB 0.935 19 0.935 20 0.975 20 0.972 21 0.916 22 0.905 23 0.905 24 0.890 25 0.890 26 0.890 27 0.885 28 0.876 29 0.877						21	0.70-10	4-17195-
NTERNAL RATE OF RETURN = 10.3 % REMAINDER = -442.66406						ì	1000	0-18545-
NTERNAL RATE OF RETURN = 10.3 % REMAINDER = -442.66406						61	26.00	7,1757
NTERNAL RATE OF RETURN = 10.3 % REMAINDER = -442.66406 _ 22					· ·	20	0.922	-30109.8
NYTERNAL RATE OF RETURN = 10.3 % REMAINDER442.6640622								
NTERNAL RATE OF RETURN = 10.3 % REMAINDER						21	0.916	-31678.7
23 0.905 24 0.900 25 0.889 28 0.885 29 0.885 29 0.872	INTERNAL	E 0F	10.3	REMAINDER=			0.911	-33079.4
25 0.990 26 0.895 27 0.885 29 0.875 29 0.876 30 0.876						23	0.905	-34329.9
25 0.895 27 0.889 28 0.881 29 0.876 30 0.876		,					006*0	-35446.6
26 0.890 27 0.885 28 0.881 29 0.876 30 0.876							0.895	-36444.0
27 0.885 28 0.881 0.887 30 0.872						92	0.890	-37334.4
28 0.861						27	2882	-38129.B
30 0.876						28	0.861	-38640.4
30 0.872			•	•		29	0.876	-39474.5
						30	0.872	-40040-1
					•	•		

INCOME STATEMENT 1980 - 1989 (1)

	0861	1981	1982	1983	1984	1985	1986	1987	1988	1989
in a	0	0	178183.	227056.	124330.	67400.	40267.	51302.	62337.	73372.
			1 0) 9 9 6 1 1 1	: : : : : : : : : : : : : : : : : : :		1 5
LAND DALES	.	.		•000127		***			•	•
LAND LEADED	•	•		5 6	2		1011		1111	
MAINTENANCE & SERVICE CHARGE			ċ			383.	1158.	1933.	2708	3483
SUPPLY & SEWAGE DISPO	0	0		0.		5130.	15340	25650	35910	46170
COST ,	423.	748.	14847.	29150.	32015.	31274.	67655.	76434.	84709.	93083
Υ Y	423.	423.	1751.	2619.	346	9316.	19248.	29257.	39266.	45275.
CALADIEC E UACEN	226	- 22 Å	707	1177	1,47	2120	7355	7	2355	2354
ADMINISTRATION	188.	188.	545	942.	1318	1696.	1884.	1884-	1884.	1684.
PROMOTION	ċ	ċ	500.	500.	ŭ	500.	0	0	0	0
# C S			• •	; c		383. 4617.	13851.	23085.	32319.	41553.
:	0	325.	4639	15947.	65	19612.	16862.	63	13857.	12262.
LONG TERM FOREIGN	0	325.	1400-	5600.	11275.	14375.	15800.	15532.	13897.	12262.
ON LONG TERM FOREIGN DEBT (*)	ċ	ċ		0				ċ	ċ	ċ
ON SHORT TERM DEBT (LESS) ON DEPOSIT	• •	. .	23	10347.	11382.	5237. 0.	1062.	99.		ວ່ວ
DEPRECIATION	o	, 0	0		0	0	31545	31545	31545.	31545.
			ĺ	ł	Ì	1	İ			
COST OF LAND SOLD	•	0	8457.	10584.	5892.	2346.	•	0	0	0
E I	423	-748.	163336.	197906.	92315-	36126.	-27388.	-25132	-22312.	-19711.
J COMMERCIAL & LCCAL	1	0	6860.	8742.	4707.	1846.	0	ō	ō	0
))		-748.	156475.	189164.	87608.	34280.	-27388.	-25132.	-22372.	-15711.
SS) DIVIDEND	i	0	0	0	0		0	-0	0.	0
	-42	-748.	156475.	18	87608.	34280.	-27388-	-25132-	-22312.	-14711.
.VE	-423-	-1171.	155304.	344468.	432077.	466357.	438969.	413837.	391465.	371755.
TAX	•0	•	- 35	87.	74.	54.	-68.	-46.		-27.
RATIO (AFTER TAX) %	0	0	88.	83.	70.	51.	-68.	-45.	-36.	-210
BORAK BURK DOTAT		0			26.	42.	210-	197.	183-	171

INCOME STATEMENT 1990 - 1994 (2)

1										
	1990	1661	1992	1993	1994		,		:	
REVENUE	78868.	78888.	78888.	78888.	78888.					-
										1
LAND LEASED	4147.	4147	4147.	4147.	4147					
FACTORY & COMMERCIAL RENTALS	19572.	19572	19572.	19572-	19572		; ; ;	1	1 !!!	•
NANCE E	3869.	3869.	3869.	3869.	3869.		;		:	
WATER SUPPLY & SEWAGE DISPOSAL	51300.	51300.	51300.	51300.	51300.					
	96451.	86500.	84865	83230-	81595.	-	•	;		•
OPERATING COST	54278	54278。	54278.	54278-	54278	!				
١.,	7155.	2366	2355	2356	2345					
ADMINISTRATION	1884	1.684	1884.	1884	1884.	;	1			
PROTOTION	•	0	•	0	0					
KEPAIK E MAINTENANCE * MATER E SEWAGE	46170.	3869. 46170.	3869. 46170.	3869.	3869.	1				
	10627.	8992.	7357.	5722.	4087.					
ON LONG TERM FOREIGN DEBT	10627.	8992.	7357.	5722	4087.	7457	818			
Z	0	0	C	0	0					
ON SHORT TERM DEBT	0	0 0	. c	d c	.					
			,			1				
ATION	31545.	23230.	23230.		23230.					
COST OF LAND SOLD	0.	•	ò		ċ					
BEFORE TAX		-7612-	-5577.	-4342.	-2707.				•	
(LESSI COMMERCIAL & LCCAL TAX	0	.0	.0	-0	. 0					
INCOHE AFTER TAX	-17563.	-7612-	-5577.	-4342-	-2707-					
	0	0	0	ò	0					<u> </u>
INCOME AFTER TAX & DIVIDEND	-17563.	-7612-	-5977.	-4342.	-2707.	,				
CUMURATIVE	354192.	346580.	340603.	336261.	333553.	; { i	1		1	
PROFIT RATIO (BEFORE TAX) #		-10-	-8	-6.	-3.			,		
PROFIT RATIO (AFTER YAX) 2	-22.	-10.	18.	-6-	•6-	i i	1			
EVEN PO	162.	127.	123							

-20846. 169511. 148645. 0.54

0.50

1.25

2.96

5.33

14.07

38.03

-1.30

DEBT-SERVICE COVERAGE

66666

32700

32700

CASH FLOW STATEMENT 1980 - 1989 (1)

** CASE 3 - 1 **

9174. -22372**.** 31545. ċ å 32700. 00000 ċ ċ -23527-193037. 169511. 9114. 32700. 32700. 1988 -25132. 31545. ö • 32700. 00000 219324. 193037. 1733. 000 ö 34020. ď ċ -26286. 6414. 1320-32700. 1320 1987 1000 BAH1 .06022 10740. 0. 0. 15417. 219324. å 22257. o 11517 203907. 37674. -27388. 31545. 22000-11517 ċ 00 4157. 10740. 1986 35000. 203907. 115774. 95412. 14730. 35685. 849. 20363. 183544. 44148 ô ö o 00 51264. ċ 44148 36626. 34280. 2346. 35000. 1985 139271. 54159. 3288. 89000. 183544. 5892. 197761. 220290. ô 234508. ö 00 ċ -14217. 87608. 95000 37790. ċ 196718-37790. 93500 1984 CASH FLOW STATEMENT (1) 234825. 32445. 3090. 138000. ċ 10584. 67388. 130374. 197761. 389334. ö 51586. ċ 321946. ċ 00 270360. 138000. 189164 51586. 199748 1983 156475. 0. 8457. €80• 30000 108427. 24726. 0. 10628. 25884. 130374. 238121. 43188. ċ 129694. 164932. 30000 ċ ċ 00 65238. 43188. 1982 **980** ċ 23723. -1411-2151-0. 0. 23723. ö ö 22252 -748. 13000. ċ 00 ċ 23000 23723 1981 50000. -423. 0. ċ ċ 2151. ċ 49577. -423-50000. ů 47426. ö ပ်ပံ 47426. •••• ö ö 2151. 47426. DECREASE IN MORTGAGE PECETVABLE INCREASE IN MORTGAGE RECEIVABLE CASH GENERATED FROM OPERATION INCOME AFTER TAX & DIVIDEND DEPRECIATION LAND SOLD AT COST BUILDING ENGINEERING & ARCH. SERVICE OTHERS LONG TERM FOREIGN DERT (*) REPAYMENT OF LONG TERM DEBT INCREASE IN OPERATING FUND DECREASE IN OPERATING FUND INVESTMENT IN FIXED ASSET GOVERNMENT CONTRIBUTION PAYMENT BY OTHER STAGES LONG TERM FOREIGN DEBI BEGINNING CASH BALANCE FINANCIAL RESOURCES APPLICATIONS OF CASH ENDING CASH BALANCE FOREIGN DEBT FOREIGN DEBT (*) LAND AQUISITION LAND DEVELOPMENT SOURCES OF CASH CASH SURPLUS

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11834. -19711. 31545.

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		U	CASH FLOW STATEMENT	TATEMENT	(2)
	1990	1991	1992	1993	1994
SOURCES OF CASH	13982.	15618.	17253.	19998.	20523.
CASH GENERATED FROM OPERATION	13982.	15618.	17253.	18888.	20523.
INCOME AFTER TAX & DIVIDEND DEPRECIATION LAND SOLD AT COST	-17563. 31545.	-7612. 23230. 0.	-5977- 23230. 0.	-4342. 23230. 0.	-2707. 23230. 0.
FINANCIAL RESDURCES	°	ő	ò	ė	0
GOVERNMENT CONTRIBUTION LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT (*)	000	000	605	000	600
DECREASE IN MORTGAGE RECEIVABLE	0	0	0	•	•0
INCREASE IN OPERATING FUND	0.	0	0.		0
PAYMENT BY OTHER STAGES	0	•0	0.	0	0

APPLICATIONS OF CASH	32700.	32 700.	32700.	32700.	32700-
REPAYMENT OF LONG TERM DEBT	32700.	32700.	32700	32700.	32700-
FOREIGN DEBT FOREIGN DEBT (*)	32700. 0.	32700. 0.	32700.	32700. 0.	32700.
INVESTMENT IN FIXED ASSET		0.	0.	.0	9.
LAND AQUISITION LAND GEVELOPMENT	••		••	• •	66
BUILDING ENGINEERING & ARCH. SERVICE OTHERS	200			555	
INCREASE IN MORTGAGE RECEIVABLE	0	0	0.	0	0
DECREASE IN OPERATING FUND	0	0.	•0	0.	•0
CASH SURPLUS	-18718.	-17082.	-15447-	-13812-	-12177.
BEGINNING CASH BALANCE	148645.	129928.	112845.	97398.	83585.
ENDING CASH BALANCE	129928.	112845.	97398.	83585.	71408-
DEBT-SERVICE COVERAGE #	0.57	0.59	0.61	9.64	19.0

BALANCE SHEET 1980 - 1989 (1)

** CASE 3 - 1 **

			BALANCE	SHEET ()	<u>-</u>		1000 BAHT	ţ		
	1980	1981	1982	1983	1984	1985	9861	1987	1988	1989
ASSETS	49577.	71829.	301493.	680243.	819061.	844193.	827288.	768137.	113065.	• 669099
CURRENT ASSETS	2151.	680	173562-	292536.	240529.	216743.	220643-	153027.	169511.	148645.
CASH & DEPOSITS MORTGAGF RECEIVABLE	2151.	680.	130374- 43188•	197761.	183544-	203907. 12837.	219324.	193037. 0.	169511,	148645-
FIXED ASSETS	47426.	71149.	127931.	387707.	578532.	627450.	606645.	575100.	543555.	512010.
LAND BUILDING	47426.	47426.	72153.	306977.	446248. 86605.	460978. 122289.	471719.	471715	471719.	471719.
ENGINEERING C ARCH. SERVICE	•	23723.	34351.	37441.	40729.	41577.	41577.	41577.	41577.	41577.
	.		.0	* C 00 C 2	.000	•0	31545	63090.	94635.	126181.
	66	•••	8457. 0.	14041.	24933.	27279.	27279.	27279. 0.	27279.	27279.
LIABILITIES & EQUITIES	49577.	71829.	301493.	680243*	819061•	844193.	827288.	768137.	713065-	660655.
LIABILITIES	0	13000.	86188.	275775.	326985.	317837.	328320.	294300.	261600.	228900.
CURRENT LIABLLITIES FOREIGN DEBT (*) MATURING FOREIGN DEBT (*) MATURING SHORT TERM DEBT FIXED LIABILITIES LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT	0000000	0. 0. 0. 13000. 13000.	43188. 0. 0. 43188. 43000. 43000.	94775- 0- 94775- 181000- 181000-	56985. 0. 56985. 270000. 270000.	12837. 0. 12837. 305000. 305000.	34020- 32700- 32700- 294300- 294300- 0-	32700. 32700. 0. 261600. 261600.	32700. 32700. 0. 0. 228900. 228900.	32700- 32700- 32700- 0- 0- 196200- 196200- 0-
EQUITIES	49577。	58829.	215304.	404468.	492077.	526357.	498869	473837.	451465.	431755.
GOVERNMENT CONTRIBUTION RETAINED EARNINGS	50000.	60000. -1171.	60000. 155304.	60000. 344468.	60000°	60000. 466357.	60000° 438969°	60000. 413837.	60000. 391465.	60000. 371755.
CURRENT RATIO #	•	0	405+	305.	422•	1688.	648.	590.	518.	455.
DEBT EQUITY RATIO *	•	22.	*0*	68.	•99	•09	•99	62.	58.	53.

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** CASE 3 - 1 **

			BALANCE SHEET	-	2)	
	1990	1661	1992	1993	1994	
ASSETS	610392.	570080.	531403.	494360.	458953.	
CURRENT ASSETS	129928.	112845.	97398.	83585.	71408.	
CASH C DEPOSITS MORTGAGE RECEIVABLE	125928.	112845.	97398. 0.	83585. 0.	71408.	
FIXED ASSETS	480464.	457235.	434005-	410775.	387546.	
LAND	471719.	471719.	471719.	471719.	471719.	
	122269.	122289.	122289.	122289.	122289.	
DIMERS.	29884	79884-	24884	20884.	41311.	
CUM.	157726-	180955	204185	227415	250644.	
(LESS) COST OF LAND SOLD	27279-	27279.	27279.	27279	27279 °	
LIABILITIES & EQUÍTIES	610392.	570080.	531403.	494361.	458953.	
LIABILITIES	196200.	163500.	130800.	98100-	65400.	
CURRENT LIABILITIES FOREIGN DEBT MATURING FOREIGN DEBT (*) MATURING	32700. 32700. 0.	32700. 32700. 0.	32700. 32700.	32700. 32700. 0.	000	
SHORT TERM DEDT	0.	00000	00100	*0	0.00	
	163500.	130800.	98100.	65400	65400 0	
EQUITIES	414192.	406580.	400603.	396261.	393553.	
GOVERNMENT CONTRIBUTION RETAINED EARNINGS	60000. 354192.	60000. 346580.	60000- 340603-	60000. 336261	.60000 333553	
CURRENT RATIO	397.	345.	298*	256-	0.	
DEBT EQUITY RATIO %	47.	40.	33*	25•	17.	

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	COSTILI	REVENUELLI	OPE. CTAX(I)	BENEFLTER	D15.RAT10(1)	B/C RATIO(1)	NET PV (1)
086	47426.5	0.0	423.0	-423.0	I	İ	
981	23722.9	0.0	423.0	-423-0	2	1.116	72563.1
282	270360.3	1,6182.7	171-0	169571.6	m vi	1.098	59333.8
984	ì	124330.2	3466.0	116157.3		1,065	37354.1
985	51263.5	67400.3	9316.4	56237.7	9	1.051	28240.9
986	10740-1	40267-3	19248.3	21019,0		1.037	20175.7
196		51302.2	29257-2	22045.0	æ (1.025	13032.2
989	. 0.0	73371.9	49275-0	24096.9	10	1.002	1081-1
990	0.0	78886.1	1 02073	0 97770	1.1	200 0	. 0000
1991	0 0	788867	;;	0.01042	7 7 7	755.0	7.83461
1992	0.0	78888.1	54278-1	24610.0		E 20.0	H-28221-
993	0.0	78888	54278.1	24610.0	41		-15789.8
466	0.0	78888.1	54278.1	24610.0		14957	-18912-1
					16	0.949	-21693.2
			1		17	0.942	-24171.4
					18	0.935	-26381.0
	!		,	!	20	0.922	-30105-8
					21	0.916	-31678.7
INTERNAL	RATE OF RETURN	= 10.3 %	REMAINDER =-	-442.66406	22	0.911	-33079.4
					23	906*0	-34329.9
				1		0.900	-35446-6
					د 2	c 88 -0	-36444.0
					26	0.890	-37334.4
	,				22	0.685	-38129.8
					87	0.881	-38840.4
	1 1		1	1	47	0.00	0.47.50
						270.0	-01-001
		1		:			
		,			1		
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INCOME STATEMENT 1980 - 1989 (1)

			1							
	1980	1981	1962	E961	1984	1985	9861	1881	1988	6861
ŘEVENÚE	o	0	178183.	227056.	124330.	67400.	40267.	51302.	62337.	73372.
			ŀ		į					'n.
LAND SALES	ô	6	178183.	227056	122257.	47954.			•	0
LAMD LEASED	ď	•	•	ô	~	4147.	4	414	414	4147
FACIONY E COMMENCIAL MENIALS	.		å	.	•	9786.	195		19572.	15572
WATER SUPPLY & SENAGE DISPOSAL	0			0	0	5130	15390	25650	35910.	46170
1503	_423.	845.	15300-	30960	35650-	36139.	-	214	5817	97590
DOEBATING COST	493		1261	3636	3444	1:	2	1 4		
Unional Ind. Co.3.1	*675	٧ ۱	01611	i i	3400.	4316.		., 5757	39266.	49215
SALARIES G MAGES	i (m	_ 235.	706.	1177.	14-	2120-	35	35,	2355.	
ADMINISTRATION	188.	∞)	545.	942.	#	1696.		8		1884.
	• •	• o	-006	500	8	500.	1		•	
KEFAIR & MAIN CHANCE MATER & SEMAGE		åå		åå	••	4617.	1158:	r. 🕮	2708. 32319.	3483.
INTEREST	o	422.	5092	17757.	26332.	24477.	22512.	21341.	19006.	16770.
	•	422.	1852.	7410	14950-	19240.	21450.	21242	19006.	16770.
ON LONG TERM FOREIGN DEBT (*)	•	•	•	•				!	! !	6
ON SHORT TERM DEBT	ó	000	3239.	10347.	11382.	5237.	1962.	*55	ô	•
			1			0	•	-0	0	· n
DEPRECIATION	0	٥,	0	o	0.	•	31545.	31545.	31545.	31545.
COST OF LAND SOLD	0	•	8457.	10584.	5892.	44	•0	ö	0.	0-
BEFORE	-423.	-845	162883.	196096.	68640.	77	-33038.	-20841.	-27480.	-24218
(LESS) COMMERCIAL & LCCAL TAX	0		6860.	8742.	4707.	1846.	0.	0.	0.	.0
INCOHE AFTER TAX	-423.	-845.	156023.	187354-	83933.	29415.	-33038.	-30841.	-27480.	-24218.
ILESS) DIVIDEND	0	•0	•0	0.	0	o	0	0	0	0
FTER TAX & D	-423.	-845.	156023.	6	83933.	29415.	-33038-		-27480-	-24218-
CUMURATIVE	-423.	-1268-	154754-	342108.	426042.	455457.	422419.	391578.	364057.	239879.
PROFIT RATIO (BEFORE TAX! T	0.	0	91.	-98	71.	46.	-82-	-60	-44	-33.
F .		•	88.	83.	68.	44.	-82.	- 09-	-44.	-33.
BDGAV CUCN COTAT						***********	111111111111111111111111111111111111111			

INCOME STATEMENT 1990 - 1994 (2)

** 7 - 6 7621 **

					1	-	בשמ חססו	
	1990	1661	1992	1993	1994	:		
UE .	78888.	78888.	78888.	78888.	78888.			-,
							,	
LAND SALES				0				
FACTORY & COMMERCIAL RENTALS	19572	10577	19572	10572	19572	1		
MAINTENANCE & SERVICE CHARGE	3869	3869	3869	3869.	3869	i	,	
WATER SUPPLY & SEWAGE DISPOSAL	51300.	51300.	51300.	51300.	51300.			
ST .	· •	89806	87570.	85334.	83058			
OPERATING	54278.	54278	54278.	54278.	54278.			
AND THE PROPERTY OF THE PROPER	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		3366	3 2 2 2	1155			
ACHINISTRATION	1884.	1884	1884.	1.884	1884.			
PROHDTION	0	•	o ,	ċ	ċ			
REPAIR E MAINTENANCE Water e Sewage	3869. 46170.	3869.	3869.	3869. 46170.	3869.			
INTEREST	1 10	12298	10062	7826.	5590.			
LONG TERM FORETGN DEBT	14534.	12298.	10062.	7826.	5590.	•		
UN LUNG IERM PUREIGN DEBI (*) ON SHORT TERM DEBT (LESS) ON DEPOSIT		000	000	0	0 .	:		
OEPRECIATION	31545.	23230	23230.	23230.	23230.			
COST OF LAND SOLD	.0	.0	0	0.	0.	,		•
OME BEFORE TAX	-21469.	-10918-	-8682.	-6446.	-4210.			
(LESS) COMMERCIAL & LOCAL TAX	0	0	•0	70	0			
INCOME AFTER TAX	-21469.	-10918-	-8682-	-6446.	-4210.			
ESS) DIVIDEND		0	С	0.	0.			
AFTER TAX & DIVIDEND	-21469.	-10918-	-8682.	-6446.	-4210.			
	31,8410.	307493.	298811.	292365.	.288155-	t		
IT RATIO (BEFORE TAX) T	-27.	-14	-111-	-9-	-5.			
PROFIT RATIO (AFTER TAX) T	-27.	-114	-11.					
914114111111111111111111111111111111111								

CASH FLOW STATEMENT 1980 - 1989 (1)

** 7 1 5 15 1										
			CASH FLOW STATEMENT	STATEMENT	(1)		1000 8AH1	ВАНЛ		
	1980	1861	1982	1983	1984	1985	1986	1987	1988	1989
SOURCES OF CASH	49577.	22155.	238668.	389524.	219615	115909.	38024-	2024.	4065.	1327.
CASH GENERATED FROM OPERATION	-423.	-845.	164480.	197938.	89825.	31761.	-1493.	704.	4065.	7327.
INCOME AFTER TAX & DIVIDEND DEPRECIATION LAND SOLD AT COST	-423.	-845. 0. 0.	156023. 0. 8457.	187354, Q. 10584.	83933. 0. 5892.	29415. 0. 2346.	-33038. 31545. 0.	-30841. 31545.	-27480. 31545. 0.	-24218. 31545. U.
FINANCIAL RESGURCES	50000	23000	31000.	140000-	92000-	40000-	28000	0	0.	0.
GOVERNMENT CONTRIBUTION LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT (*)	\$0000. 0.	13000.	31000.	1 40000.	92000.	4000¢	28000.	000	000	000
DECREASE IN MORTGAGE RECEIVABLE	0	8	0	• 0	37790.	44148.	11517.	1320-	0	0
INCREASE IN OPERATING FUND	0	0	43188.	51586.	0	0	0	0.	ò	0
IVMENT BY OTHE	.0	ō	•		0.	0	•	0.	0.	6
APPLICATIONS OF CASH	41426.	23723.	108427.	321946.	234508.	95412.	22253.	35720.	34400*	34400*
REPAYMENT OF LONG TERM DEBT	0.	.0	0		.0	.0	0	34400.	34400.	34400.
FOREIGN DEBT (*)	00	0.5	••	00	00	00	0.0	3446	34400	34400
INVESTMENT IN FIXED ASSET	47426.	23723.	65238.	270360.	196718*	51264.	10740.	•	-0	0
LAND AQUISITION LAND DEVELOPMENT BUILDING ENGINEERING & ARCH. SERVICE OTHERS	47426. 0. 0. 0.	23723* 0* 0* 0* 0*	24726. 24726. 10628. 25884.	234825. 32445. 3090. 0.	139271. 54159. 3288. 0.	14730- 35685- 849-	10740-	00000	00000	65000
INCREASE IN MORTGAGE RECEIVABLE	0.	0.	43188.	51586.	•0	0	0	0.	0	0
DECREASE IN OPERATING FUND	ů	•	0.	ő	37790.	44148-	11517.	1320.	•0	0
	2151.	-1568.	130242.	67578.	-14892.	20498.	15767.	-33650-	-30335.	-27073-
BEGINNING CASH BALANCE	°	2151.	582.	130824.	198401.	183509.	204007.	215774.	186078.	155743.
ENDING CASH BALANCE	2151.	585.	130824-	198401.	183509.	204007•	219774.	186078.	155743.	128670.
DEBT-SERVICE COVERAGE *	0°0	-1.00	34.65	12.64	4.59	2.37	0.93	0.40	0.43	0.47

** CASE 3 - 2 **						
		J	CASH FLOW STATEMENT	STATEMENT	(2)	1000 BAHT
	1990	1661	1992	1993	1994	
SOURCES OF CASH	10076.	12312.	14548.	16784.	19020.	
CASH GENERATED FROM OPERATION	10076-	12312.	14548.	16784.	19920•	
INCOME AFTER TAX & OTVIDEND DEPRECIATION LAND SOLD AT COST	-21469- 31545- 0-	-10918. 23230. 0.	-8682. 23230. 0.	-6446. 23230.	-4210. 23230. 0.	
FINANCIAL RESOURCES	0.	0.0	0.	0.0	0	
GOVERNMENT CONTRIBUTION LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT (*)	000	000	000	000	000	
DECREASE IN MORTGAGE RECEIVABLE	0	•0	0.	.0	•0	
INCREASE IN OPERATING FUND	0	0.	0.	0.	\$ P P P P P P P P P P P P P P P P P P P	
PAYMENT RY DIHER STAGES	0	* 0	o	ö	0	
APPLICATIONS OF CASH	34400	34400.	34400.	34400	34400.	
REPAYMENT OF LONG TERM DEBT	34400-	34400•	34400	34400.	34400	
FOREIGN DEBT FOREIGN DEBT (*)	34400-	34400	34400.	34400.	34400.	
INVESTMENT IN FIXED ASSET	6	0	·	0	ó	
LAND AQUISITION LAND DEVELTPMENT	00	00	•			
BUILDING ENGINEERING & ARCH. SERVICE OTHERS		ç ó ö			င် င် င်	
INCREASE IN MORTGAGE RECEIVABLE	0	o	ċ		0	
DECREASE IN OPERATING FUND	.0	0	•	c	0.	
CASH SURPLUS	-24324-	-22088.	-19852.	-17616.	-15380+	
BEGINNING CASH BALANCE	128670.	104346-	82258	•90529	44790.	
ENDING CASH BALANCE	104346.	82258	62406.	44790.	29410.	
DEAT_CEOVICE COVERAGE 3	05.0	0.53	0.55	0.58	0.62	

BALANCE SHEET 1980 - 1989 (1)

** CASE 3 - 2 **

			BALANCE SHEET	SHEET ()	-		TOOO BAHT	E		
	1980	1981	1982	1983	1984	1985	1986	1981	1988	5861
ASSETS	49577.	71731.	301943.	680883.	819026.	844293*	821138.	761177.	699297.	640679.
CURRENT ASSETS	2151.	582*	174012.	293176.	240494.	216843.	221093-	186078.	155743.	128670.
CASH & DEPOSITS MORTGAGE RECEIVABLE	2151.	.0 .582	130824.	198401. 94775.	183509. 56985.	204007.	219774.	186078. 0.	155743.	128670.
515	47426.	71149.	127931.	387707.	578532.	627450.	606645.	535100.	543555	512010.
LAND BUILDING	47426.	47426.	72153.	306977.	446248	460978.	471719.	471719	471719,	471719.
ENGINEERING C ARCH. SERVICE	66	23723	34351.	37441.	40729.	41577	41577	41577	41577.	41577
(LESS) CUM. DEPRECIATION		ċ	0		0	0	31545	63090	94635	126181.
(LESS) COST OF LAND SOLD (LESS) TRANSFER TO OTHERS	8457. 0.	19041.	24933-	27279.	27279.	27279.	27279.	27279.
LIABILITIES & EQUITIES	49577.	71732.	301943.	680883.	819026.	844293.	827738.	761178.	699297.	640679.
LIABILITIES	.0	13000.	97188-	278775	332985.	328837.	345320.	309508	275200.	240800.
CURRENT LIABILITIES CURRENT LIABILITIES FOREIGN DEST MATURING	000	000	43188	94775.	56985.	12637.	35720. 34400. 0.	34400-	34400.	34400.
SHORT TERM DEBT	iė	0	43188	94775	\$6985.	12837.	1320.	235300	0.000	0.
LINED LIABILITIES LONG TERM FOREIGN DEBT LDNG TERM FOREIGN DEBT (*)		13000	44 4000 0000 0000	184000.	276000.	316000.	309600	275200.	240800.	206400°
į	49577。	58732-	214754-	402108*	486042.	515457.	482419.	451578.	424097.	399879
GOVERNMENT CONTRIBUTION RETAINED FARNINGS	50000-	60000.	60000. 154754.	40000°-	60000. 426042.	60000. 455457.	60000. 422419.	60000. 391578.	60000-364097.	339879.
CURRENT RATIO	0.	0.	403*	*60€	422=	1689.	619.	541.	453.	374.
DEBT EQUITY RATIO %	0	22.	41.	.69	•69	64.	72.	-69	65.	÷09

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			BALANC	BALANCE SHEET (2 1
	1990	1991	1992	1993	1994
ASSETS	584810.	539492.	496431.	455	717066
CURRENT ASSETS	104346.	82258	42404	20277	• • • • • • • • • • • • • • • • • • • •
CASH & DEPOSITS HORTGAGE RECEIVABLE	104346.	82258°	62406	44790.	29410.
FIXED ASSETS	480464	457235-	***************************************		-0
LAND BUILDING ENGINEERING & ARCH. SERVICE	471719. 122289. 41577.	471719. 122289. 41577	471719.	471719-	471719. 122289.
OTHERS CUM. DEPRECIATION (LESS) CUM. DEPRECIATION (LESS) COST OF LAND SOLD (LESS) TRANSFER TO OTHERS	29884. 157726. 27279. 0.	29884. 180955. 27279.	29884. 204185. 27279.	29884. 227415. 27279.	415//- 29864. 250644. 27279.
LIABILITIES & EQUITIES	584810.	539493.	496411.	455565.	61 Kone
LIABILITIES	206400.	172000.	137600.	103200	68800-
CURRENT LIABILITIES FOREIGN DEBT MATURING FOREIGN DEBT (*) MATURING SHORT TERM DEBT FIXED LIABILITIES LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT	34400. 34400. 0. 0. 172000. 172000.	34400. 34400. 0. 137600.	34400. 34400. 0. 103200.	34400. 34400. 34400. 68800.	68800. 68800.
EQUITIES	378410.	367493.	358811.	352365.	348155.
GOVERNMENT CONTRIBUTION RETAINED EARNINGS	60000. 318410.	60000. 307493.	60000. 298811.	60000.	60000. 288155.
URRENT RATIO	303.	239.	181.	130.	0
JEBT EQUITY RATIO 4	55.	47.	38.	29.	20.

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,	NET PV(1)	87575.8	(2563+1	2353540 47667.1	37354-1	28240.9	20175.7	13032.2	1081.1	-3908.2	-8341.2	12282.8	-15789.8	1-21501	-21693.2	-241/1-4	-26381.U -28351.7	-30109.8	31678.7	-33079.4	34329.9	-35446.6	-37334.4	38129.B	-3884C.4	-39474.5 -40040.7			
	BZČ RATIGLĒJ N	1.136	1			1	1.037		1.013	1			0.965		576*0			0.922				0.895	0.890			0.872			:
	015. RATIO(11		7	n 4	1	9	* -	ES ·	_ 01	11	12	13	4 t	2	16	11	100	02	21	22	23	25	26	27	28	30		-	
	BENEFIT(I)	-423.0	0.6249	215695.1	116157.3	56237.7	21019.0	22045.0	23071.0 24096.9	24610.0	24610.0	24610.0	24610.0	20121.7						-442-66406		,		!		:		· · · · · · · · · · · · · · · · · · ·	,
	OPE. CTAX(1)	423.0	146340	2619.0	3466-0	9316.4	19248.3	29257.2	39266.1 49275.0	54278.1	54278.1	54278.1	54278.1	11217		1 1				REMAINDER				•		!			
•	REVENUE(1)	0.0	7 CB187.	727055.7	124330.2	67400.3	40267.3	51302.2	62337.1 73371.9	78888.1	78888.1	78888.1	78888.1							JRN = 10.3 %				1			·		
	_ COST([]	47426.5	453363	270360.3	1.817961	51263.5	10740.1	0,0	000	0.0	0*0	0.0	0 0	•						NAL RATE OF RETURN				!		,	•		1
	YEAR	1980	1961	1983	1984		1986	1987	1988	1990	1661	1992	1993			!		ļ		INTERNA						ı			4

INCOME STATEMENT 1980 - 1989 (1)

	-	•		1						
			INCOME	STATEMENT			1000	9811		
	1980	1861	1982	1983	1984	1985	9861	1997	1988	1989
RÉVENUE	- 1	G	178183.	227056.	124330.	67400.	40267	\$1302.	62337.	13372.
			1		************				ı i	
LAND SALES	'o c	•	178183.	227056.	122257	47954.	0.747	.0		;
FACTORY & COMMERCIAL RENTALS		;		3.0	50.03	9786	19572.	19572.	19577	19572
MAINTENANCE & SERVICE CHARGE	0.0	0	0	0.	0	383.	1158.	1933.	2708	3463
MAIER SUPPLIT C SEMBGE UISPUSAL		- C	0		0	5130.	15390.	25650.	35910.	46170.
COST	423	943.	15727-	32750.	39460-	41259.	~	£6337.	95359.	102460.
OPERATING COST	423.	423.	1751.	2619.	3466.	9316.	19248-	29257-	39266.	49275+
SALARIES & WAGES	235.	235.	706-	1177.	1648.	2120.	2355-	2355.	2355.	2355
ADMINISTRATION	188.	188.	40	942	1318.	1696	1884-		1884.	1884
REPAIR & MAINTENANCE		.	200	200	2005	500.			93.66	0.00
WATER C SEVAGE			ċ	i :	0	4617.	13851	23085	32319.	41553
INTEREST	0	550	5519.	19547.	30105.	29597.	28582.	27535.	24548.	21660.
ON LONG TERM FOREIGN	0.	520-	2280.	9200	_ie720_	24360	27520.	27436.	24548.	21660.
ON LONG TERM FOREIGN DEBT (*)	ċ	ċ	å	•	0	0.	0	0	0	
CLESS) ON DEPOSIT	00	00	3239.	10347.	11382.	5237.	1062.	66
OEPRECIATION	.0	0.	0	0	0	-0	31545.	31545.	31545.	31545.
COST OF LAND SOLO	.0	0.	8457。	10584.	5892	2346.	0.	ن	0	0
SEFORE TAX	-423.	-943-	162456.	194306.	84870.	26141.	-39108.	-31035.	-37055-	-29108.
) COMMERCIAL & LEGAL	0	0	6860.	8742.	4707-	1846.	6			0.
INCOME AFTER TAX	-423.	-943-	155595.	185564.	80163-	24295.	-39108.	-37035.	-33022.	-29108.
) DIVIDEND	0	0	0		0.	0.	•	·	0.	0
AFTER TAX & DIVIDEND	; ;	-943-	155595.	185564.	80163.	24295.	-39108.	-37035.	-33022。	-25108.
CUMURATIVE	-423.	-1366.	154229.	339793.	419957-	444252.	_405144.	348109.	335086.	305978.
RATIO (0	ċ	91.	86.	68.	39.	-97.	-72.	-53.	- 40
IT RATIO (AFTER TAX)	0		87.	82.	64.	36.	-61.	-72-	-53-	,04-
BREAK EVEN POINT	. O	0	6	14.	32.	, B2,	-852	243.	223.	504

INCOME STATEMENT 1990 - 1994 (2)

** CASE 3 - 3 **

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, today a contract of the cont						
REVENUE	i	78888.	78888.	78888.	78888.	
LAND SALES	*0		0	0	0	
LAND LEASED	4147.	4147.	4147.	4147.	4147.	
FACTORY & COMMERCIAL RENIALS	19572.	19572-	19572.	19572.	19572.	
SUPPLY & SEWAGE DI	\$1300.	51300.	51300.	51300.	51300.	
	1.2	93392.	50504.	87616.	84728.	
. cost	54278.	54278	54278	54278.	54278.	
SALARIES C WAGES	2355.	2355	2355.	2355.	2355.	
ADMINISTRATION BODMOTION	1884.	1884.	1884.	1884.	1884.	
G MAINTENANCE SEWAGE	3869.	3869.	3869.	3869.	3869.	
INTEREST	18772.	15884.	12996-	10108.	7220.	
LONG TERM FOREIGN	18772.	15884.	12996.	10108.	7220*	
ON LONG TERM FOREIGN DEBT (*)	ò	0 6	•	ė	.	
SSI ON DEPOSIT	o		0	0	• 0	
1	31545.	23230.	23230.	23230.	23230.	
COST OF LAND SOLO	! ! ! !	0	0	0	.0	
OME BEFORE TAX		-14504	-11616.	-8728-	-5840.	
(LESS) COMMERCIAL G LCCAL TAX		0.0	0.	0	•0	
INCOME AFTER TAX	-25707.	-14504.	-11616-	-8728.	-5840.	
DIVIDEND	į	0	0	ő		
AFTER TAX & DIVIDEND	-25707.	-14504-	-11616.	-8728-	-5840.	
ATIVE	1 2	265768.	254152.	. 245424.	235584.	
RATIO (BEFORE TAX)	100	-18.	-15.	-111.	-7-	
C RATIO	-33	-18.	-15.	-11.	-1-	
		111111111		4 1 1 1 1 1 1 1 1 1		

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** CASE 3 - 2 **		CASH	CASH FLOW SIAIEMEN	AIEMENI	1980 -	1 989	_			-
			CASH FLOW STATEMENT	STATEMENT	(1)		1000	1000 BAHT		
	1980	1981	1982	1983	1984	1985	1986	1687	1988	1989
SOURCES OF CASH	49577.	22057.	236241.	389734.	219845.	115789.	37954•	-4170.	-1477.	2437+
CASH GENERATED FROM OPERATION	-423.	-943.	164052.	196148-	86055.	26641.	-7563.	-5490.	-1477.	2437.
INCOME AFTER TAK & OTVIDEND DEPRECIATION LAND SOLD AT COST	-423. 0.	-943.	155595. 0. 8457.	185564.	80163. 0. 5892.	24295. 0. 2346.	-39108. 31545.	-37035. 31545. 0.	-33022. 31545. 0.	-29108. 31545. 0.
ız	50000-	23000.	31000.	142000-	96000.	45000.	34000*	ò	ö	Ď
NT CONTRIBUT H FOREIGN DE M FOREIGN DE	50000.	10000.	31000.	142000.	-0 -0 -0 0 -0 0	45000.	34000.		000	000
DECREASE IN MORTGAGE RECEIVABLE	ò	ò	•	÷	37790.	44148.	11517.	1320.	•0	ô
INCREASE IN OPERATING FUND	o	0	43188	51586.	0	0		.0	•0	•
PAYMENT BY OTHER STAGES	ò	•	å	•0	•0	ċ		•	ö	Ġ
APPI ICATIONS OF CASH	47426.	24724	108427	321946.	234508.	95412.	22251.	33420.	36100.	36100.
REPAYMENT OF LONG TERM DEBT	0.	0	0.	•0	0	٥	0	36100-	36100.	36100.
FOREIGN DEBT FOREIGN DEBT (*)	00	00	60	00	00	00	00	36100.	36100.	36100.
INVESTMENT IN FIXED ASSET	47426.	23723.	65238+	270360.	196718.	51264.	10740.	*0	°.	•
LAND AQUISITION LAND DEVELOPMENT BUILLUING ENGINEERING & ARCH. SERVICE OTHERS	47426. 0. 0. 0.	0. 0. 23723.	24726. 24726. 10628. 29884.	234825. 32445. 3090.	0. 139271. 54159. 3288.	14730. 35685. 849.	10740. 0. 0. 0.	00000		00000
INCREASE IN MORTGAGE RECEIVABLE	o	0	43188.	51586.	0	0.	Ď	ō	•	Ö
DECREASE IN OPERATING FUND	0	0.	•	0	37790.	44148.	11517.	1320.	•	0
CASH SURPLUS	2151.	-1666.	129814.	67788.	-14662	20378.	15697.	-41590.	-37577-	-33663.
BEGINNING CASH BALANCE	0.	2151.	485.	130299.	198086.	183424.	203802.	215499.	177905.	140332.
ENDING CASH BALANCE	2151-	485.	130299.	198086.	183424.	203802•	219499.	177909.	140332	106669-
DEBT-SERVICE COVERAGE *	0-0	-0.81	31 - 97	11-48	4.02	1.96	62.0	\$E*0	0.38	0-42

		CASH FL(FLOW STATEMENT 1990	MENT 199	10 - 1994 (2)	<u> </u>
** CASE 3 = 3 **						
			CASH FLOW STATEMENT	TATEMENT	121	1000 BAHT
	1990	1661	1992	1993	1994	
SOURCES OF CASH	5838.	8726.	11614.	14502.	17390.	
CASH GENERATED FROM OPERATION	5838.	8726.	11614.	14502.	17390.	
INCOME AFTER TAX & DIVIDEND DEPRECIATION LAND SOLG AT COST	-25707. 31545.	-14504. 23230. 0.	-11616. 23230. 0.	-6728- 23230-	-5840. 23230. 0.	,
FINANCIAL RESOURCES	ċ	9-	0	0.	•0	
GOVERNMENT CONTRIBUTION LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEET (*)	000		000	000	000	
DECREASE IN MORTGAGE RECEIVABLE	0.	0	0.	0.	•0	
INCREASE IN OPERATING FUND	0	*0	0.	0.	•0	
PAYMENT BY OTHER STAGES	0.	0	0	0.	.0	
APPLICATIONS OF CASH	36100.	36100.	36100.	36100.	36100.	
REPAYMENT OF LONG TERM DEST	36100.	36105.	36100.	36100.	36100.	
FOREIGN DEBT FOREIGN DEBT (*)	36100.	36100.	36100.	36100.	36100. D.	
INVESTMENT IN FIXED ASSET	0	°G	0	0	ō	
LAND AGUISTITION	•	ċ	•	Ö	0 0	
BUILDING	0		50	ö	÷	
ENGINEERING & ARCH. SERVICE OTHERS	åå	•••		66	••	
INCREASE IN MORTGAGE RECEIVABLE	o	0.	. 0	0.	ó	,
DECREASE IN OPERATING FUND	0	0.	•0	0.	o	
CASH SURPLUS	-30262-	-27374.	-24486*	-21598.	-18710.	
BEGINNING CASH BALANCE	106669.	76407.	49033.	24547.	*6762	
ENDING CASH BALANCE	76407.	49033*	24547.	2949.	-15761.	
DEBT-SERVICE COVERAGE #	0.45	0.47	0.50	0.53	15.0	

BALANCE SHEET 1980 - 1989 (1)

** CASE 3 - 3 **

			BALANCE SMEET	SMEET ()	-		1000 BAHT	ţ		
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
ASSETS	49577.	71634.	301418.	680568-	818941.	844088.	827463.	753008.	683886.	618678.
CURRENT ASSETS	2151.	485.	173487.	292861.	240409	216638-	220818.	177905.	140332.	106669-
CASH & DEPOSITS HORTGAGE RECEIVABLE	21514	485.	130299.	198086-	183424.	203802.	219499.	177909.	140332. 0.	106669.
FIXED ASSETS	47426.	71149.	127931.	387707.	578532.	627450.	606645.	575100.	543555.	512010-
	47426.	47426	72153	306977	44674A.	460978-	471719.	471715.	471719.	471719.
BUILDING	0	0	0	32445*	86605	122289-	122289	122289-	122289.	122289
ENGINEERING & ARCH. SERVICE	6	23723.	34351.	37441.	40729.	41577.	41577.	41577.	41577.	41577
OTHERS	ċ	ö	29884.	29884.	29884.	29884。	29884.	25884	29884.	29884-
(LESS) CUM. DEPRECIATION	ò	ô	0	o	0	ô	31545	63090	94635	126181
(LESS) COST OF LAND SOLD (LESS) TRANSFER TO OTHERS		66	.0 .0	19041.	24933.	27279.	27279.	27279.	27279. 0.	27279.
LIABILITIES & EQUITIES	49577.	71634	301418.	680568	818941.	844088-	.627758	153009.	683886	-819819
LIABILITIES	0	13000.	87188.	280775.	338985.	339837.	362320.	324900.	288800.	252700.
CURRENT LIABILITIES FOREIGN DEBT MATURING	00	000	43188	94775.	56985.	12837.	37420.	36100. 36100.	36100.	36100.
FORFICH DEST (*) MATURING	.	•	-0	0.77	0.000	0.000	0 0	.		•
FIXED LIABILITIES	9 0	13000.	44000.	186000.	282000.	327000.	324900	288800	252700.	216600-
LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT (*)	<u>.</u> 6	13000.	.00044 0.00044	186000.	282000. Q.	327000.	324900. 0.	288800. 0.	252700. 0.	216600.
EQUITIES	49577.	58634	214229.	399793.	479957	504252-	465144.	428109.	395086.	365978.
GOVERNMENT CONTRIBUTION RETAINED EARNINGS	50000-	60000. -1366.	60000. 154229.	60000. 339793.	60000. 419957.	60000. 444252.	60000. 405144.	60000°.	60000. 335086.	60000- 305978-
CURRENT RATIO	0	0	405	•50€	422.	1688.	590.	453.	389.	295.
DEBT EQUITY RATIO #	0	22.	41.	70.	.11.	67.	78.	76.	73.	69.

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2)	1994	371784.	-15761.	-15761.	387546.	471719- 122289- 41577-	29884. 250644. 27279.	371784.	72200.	0. 0. 0. 72200. 72240.	299584	60000. 239584.	•	24.
-	1993	413724.	2949.	2949.	410775.	471719. 122289. 41577.	29884. 227415. 27279. 0.	413724.	108300-	36100. 36100. 36100. 72200. 72200.	305424+	60000.	8	35.
BALANCE SHEET	1992	458553*	24547.	24547.	434005.	471719. 122289. 41577.	29884. 204185. 27279. 0.	458552+	144400.	36100. 36100. 0. 108300. 108300.	314152-	60000	-89-	46.
	1991	506267.	49033.	49033. 0.	457235.	471719. 122289. 41577.	29884. 180955. 27279. 0.	506268.	180500.	36100. 36100. 0. 144600. 144400.	325768.	60000-	136.	55.
	1990	556871.	76407	76407.	480464.	471719. 122289. 41577.	29884. 157726. 27279. 0.	556871.	216600.	36100. 36100. 0. 180500. 180500.	340271.	60000. 280271.	212.	64.
		ASSETS	CURRENT ASSETS	CASH C DEPOSITS MORTGAGE RECEIVABLE	FIXED ASSETS	LAND BUILDING ENGINERING & ARCH. SERVICE	OTHERS (LESS) CUM. DEPRECIATION (LESS) COST OF LAND SOLD (LESS) TRANSFER TO OTHERS	LIABILITIES & EQUITIES	LIABILITIES	CURRENT LIABILITIES FOREIGN DEBT MATURING FOREIGN DEBT I*) MATURING SHORT TERM DEBT FIXED LIABILITIES LONG TERM FOREIGN DEBT LONG TERM FOREIGN DEBT	EQUITIES	GOVERNMENT CONTRIBUTION RETAINED EARNINGS	CURRENT RATIO *	DEBT EQUITY RATIO &

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DISCOUNTED CASH FLOW

** CASE 3 - 3 **

		3 *44.0	BENEFI I (1)	UIS. RAILUCII	A/C RATIO(1)	NET PV(I)
47426.5	0.0	423.0	-423-0	1	1,136	87575.8
23722.9	0.0	423.0	-423.0	2	1.116	72563.1
65238.3	178182.7	1751.0	169571.6	m	1.098	59333.8
270360.3	227055.7	2615.0	215695.1	4	1.081	47662.1
718.1	124330.2	3466.0	116157.3	en.	1.065	37354.1
51263.5	67400-3	9316.4	56237.7	9	1.051	28240.9
740.1	40267.3	19248.3	21019.0	^	1.037	20175.7
0.0	51302.2	29257.2	22045.0	60	1.025	13032.2
0 0	62337.1	39266-1	23071.0	· Cr	1.013	6.6699
0.0	73371.9	49275-0	24096.9	D1	1.002	1001-1
0.0	78888-1	54278.1	24610.0		0.992	7.3908.7
0.0	78888.1	54278.1	24610.0	1.2	0.982	-8341.2
ڻ . ت	78888.1	54278.1	24610.0	E	0.973	-12282.8
0.0	78888.1	54278.1	24610.0	14	0.965	-15789.8
0.0	78888.1	54278-1	24610.0	51	0.957	-18912-1
				16	556.0	-21693.2
ì				1.7		-24171-4
			1	1.8	0.935	-26381.0
	•			61	0.929	-28351.7
				20	0.922	-30109.8
				21	0.916	-31678.7
INTERNAL RATE OF RETURN	10.3 %	REMAINDER=	~442.66406	22	0.911	-33079.4
			i	23	0.905	-34329.9
	1			57	306.0	-35446.6
				52	468.0	-36444.0
				26	0.890	-37334.4
					0.885	-38129.8
				:	0.881	-38840.4
	,			62	0.876	-34474.5
					0.872	-40040.1

ANNEX 11-1 ECONOMIC COST FOR SIE

Unit: 1000 Baht

	Construction Cost for SIE	Tax	Transportation Expense	Economic Cost for SIE	Economic Cost for Industrial Area	Economic Cost for Housing Area
1980	47,426	-	_	47,426	39,600	7,826
1981	23,723	Δ2,026	_	21,697	18,126	3,571
1982	65,238	$\Delta 7, 172$	Δ332	57,734	48,232	9,502
1983	270,360	$\Delta 28,930$	∆1,647	239,783	200,320	39,463
1984	196,718	Δ21,626	Δ1,151	173,941	145,314	28,627
1985	51,265	Δ5,439	Δ285	45,541	38,046	7,495
1986	10,740	Δ1,678	Δ67	8,995	7,588	1,407
Total	665,470	Δ66,871	Δ3,482	595,117	497,226	97,891

Note: 1. Tax = (Tax of Base Cost) \times 1,336

2. Transportation Expense = (Material Cost of Base Cost) \times 1,336 \times 0.01

ANNEX 11-2 CONSTRUCTION COST FOR SIE FACTORIES

_	Share of Industrial Area (%)	Employees (Number)	Investment per Employee (Baht 1,000/ Employee)	Investment (Baht 1,000)
Textile & Apparel	30	5,080	128	650,000
Metal & Machinery	20	3,387	340	1,151,000
Foods	15	2,540	230	584,000
Chemical Products	10	1,693	380	643,000
Rubber	5	847	205	174,000
Wood & Furniture	5	847	205	174,000
Non-metal Products	7	1,185	131	155,000
Paper Products	3	508	205	104,000
Others	3	508	205	174,000
Total	100	16,930		3,805,000

Note: 1. Industrial area: 1,254 Rai

2. Employees per Rai: 13.5

3. Investment per employee: from BOI

CALCULATING OF ECONOMIC INTERNAL RATE OF RETURN

CALCULATIOC OF ECONOMIC INTERNAL RATE OF RETURN

YEAR	COST(1)	BENEFITIE)	015.RATIO(1)	B/C SATIOLES	NET DV.111	
1980	40023.0	0.0		,		
1981	18549.0	3534.0	7	344.6 318.8	9024647.0	
1982	304688-0	45080.0	1 (1	400 6	0.00001111	
1983	712349.0	103200.0	1	2.894	5498444	
1984	658190.0	100170.0	\$	2,708	4886862.0	
1985	554772.0	0 01.00	7			
1986	536.246.0	0.011561	9	2.537	4187488.0	
000		37204040	7	2-379	3583765.0	. !!!!
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		0.005555	60	2.234	3061747.0	
E 0 1 1		778260.0	6	2.100	2400470 0	
1 989	54278.0	1000620.0	10	1.977	2217567.0	
1000	0 0 0 0 0 0		•		* ***	
1001	0*B174C	1111800.0	11	1.863	1876995.0	
1661	0.8/240	111,1800.0	12	1.757	1580815.0	
1007	0.01277	0.0001111	13	1.660	1322960.0	
7001	0.01216	1111800.0	14	1.570	1098198.0	
1.31	246/0.0	1111890.0	15	1.487	90208	
1995	54278	1111800.0	7.	•	1	
1096	54278.0	0.0081111	2 !		130845.9	
	54278-0	0.0001111) ï	1.338	581216.0	
1 DOR	54278	00001111	B. T.	1.272	450419.0	
1999	F. 2.70	0000	6.7	1.210	335995.0	
	٠l	1111000.0	02	1.153	235887.0	
			21	1.099	148304.0	
			22	1.050	71659.0	
			23	1.003	4621.0	
			54	0.960	-53984.0	
INTERNAL	DATE OF BETHER!		25	616.0	-105189.0	i
744.	V 10 01.54		č	1		
		-	010	0.882	-149869.0	ì
			77	0.846	-188819.4	
PEMAINDER	8×	7.4	200	0.813	-222712.8	1
			621	0.782	-252143.7	!
	1	;	กิด	0.752	-277635.1	



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