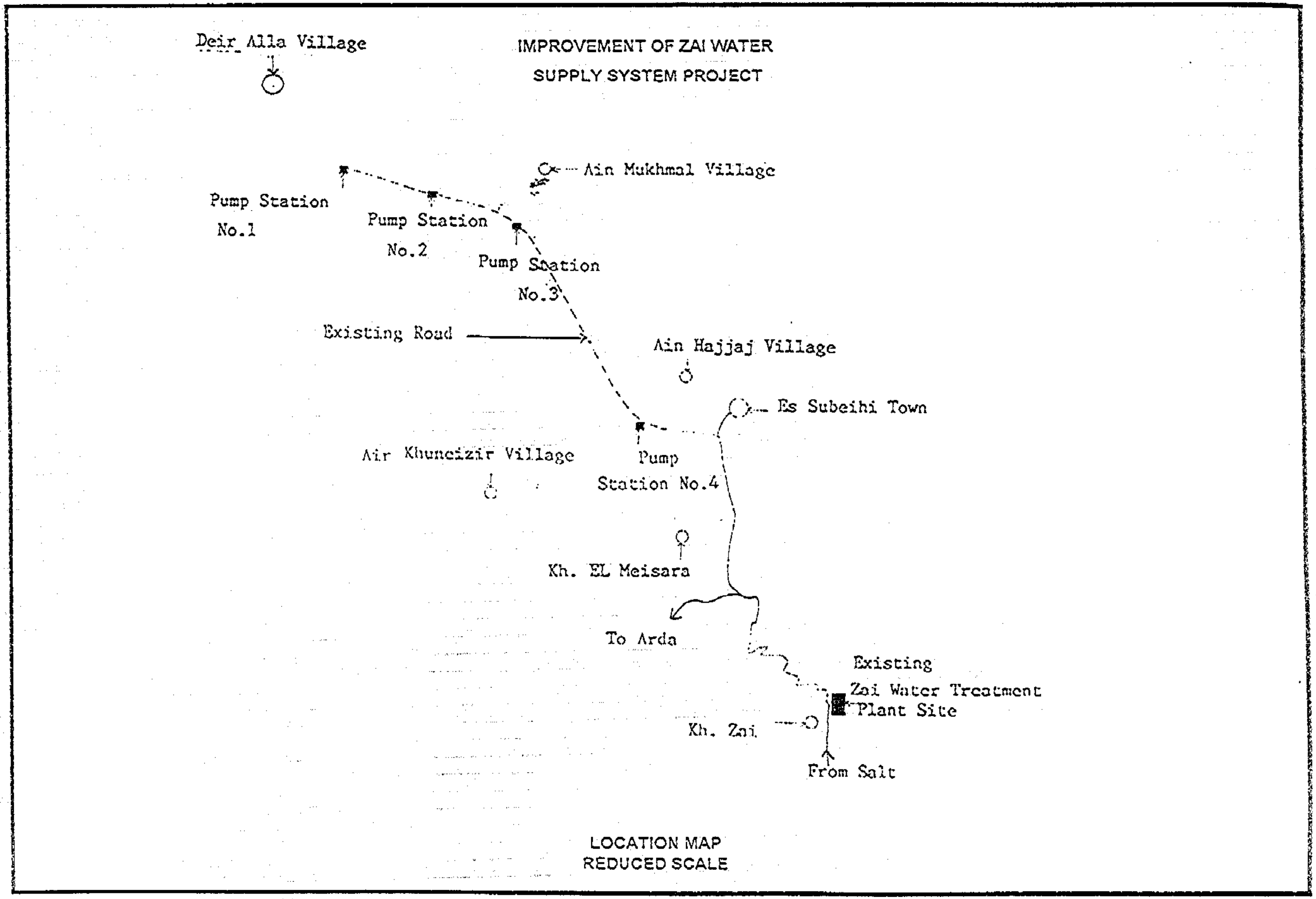
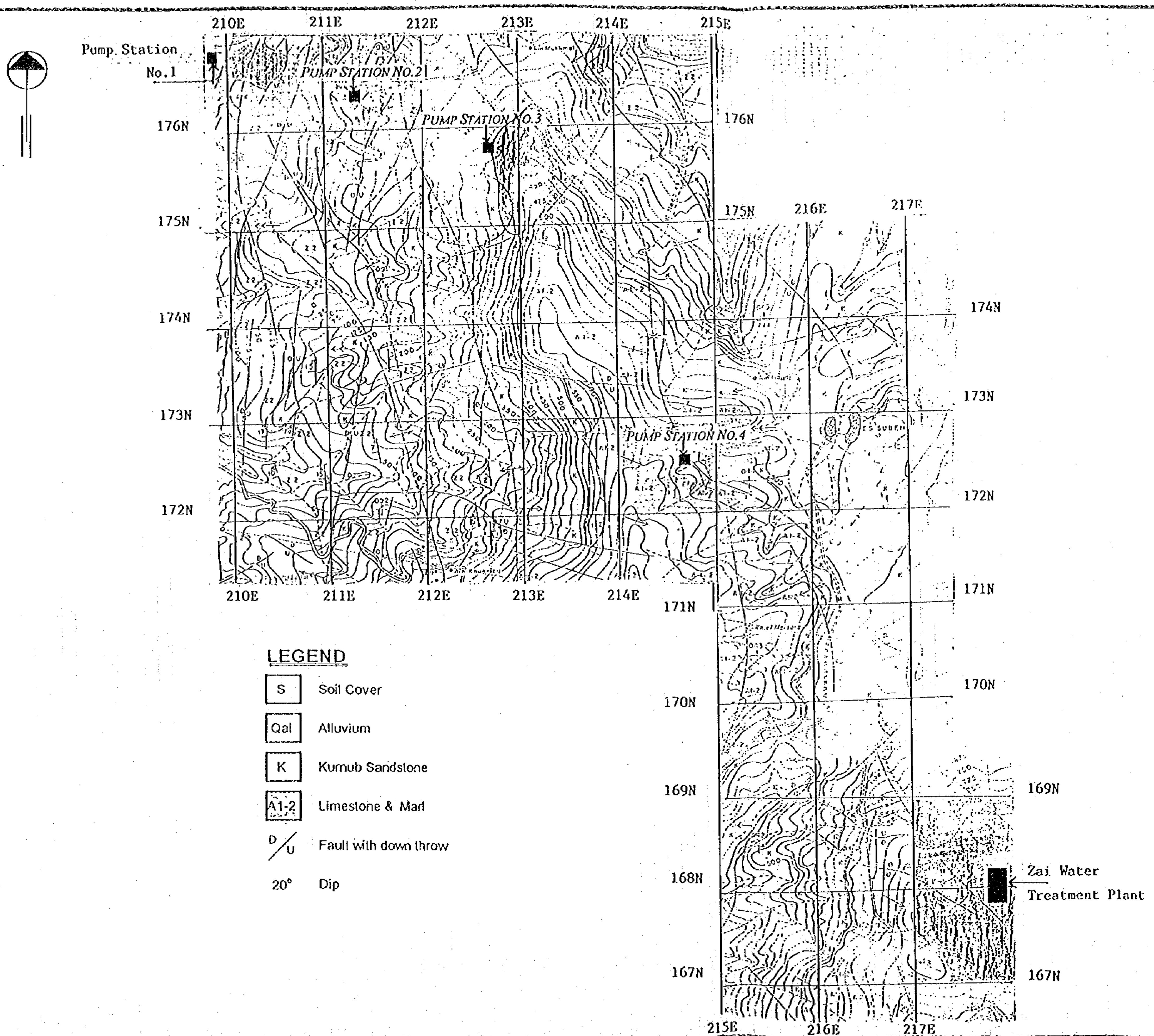
資料１０　土質データ

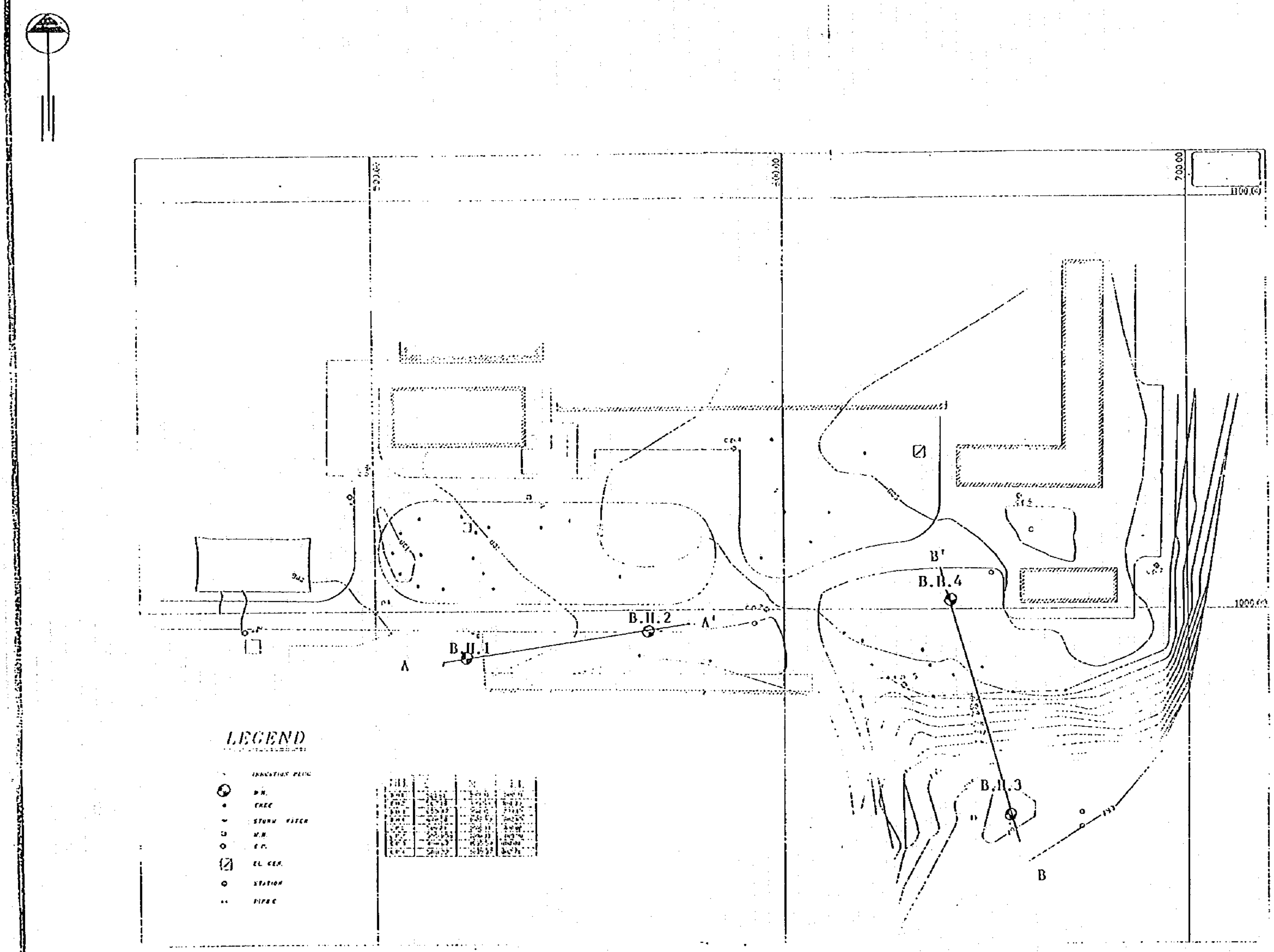

Deir Alla Village
IMPROVEMENT OF ZAI WATER
SUPPLY SYSTEM PROJECT
Ain Mukhmal Village
Pump Station
No.1
Pump Station
No.2
Pump Station
No.3
Existing Road
Ain Hajjaj Village
Es Subeihi Town
Air Khuneizir Village
Pump
Station No.4
Kh. EL Meisara
To Arda
Existing
Zai Water Treatment
Plant Site
Kh. Zai
From Salt
LOCATION MAP
REDUCED SCALE



IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT

GEOLOGIC MAP

SCALE 1:40000

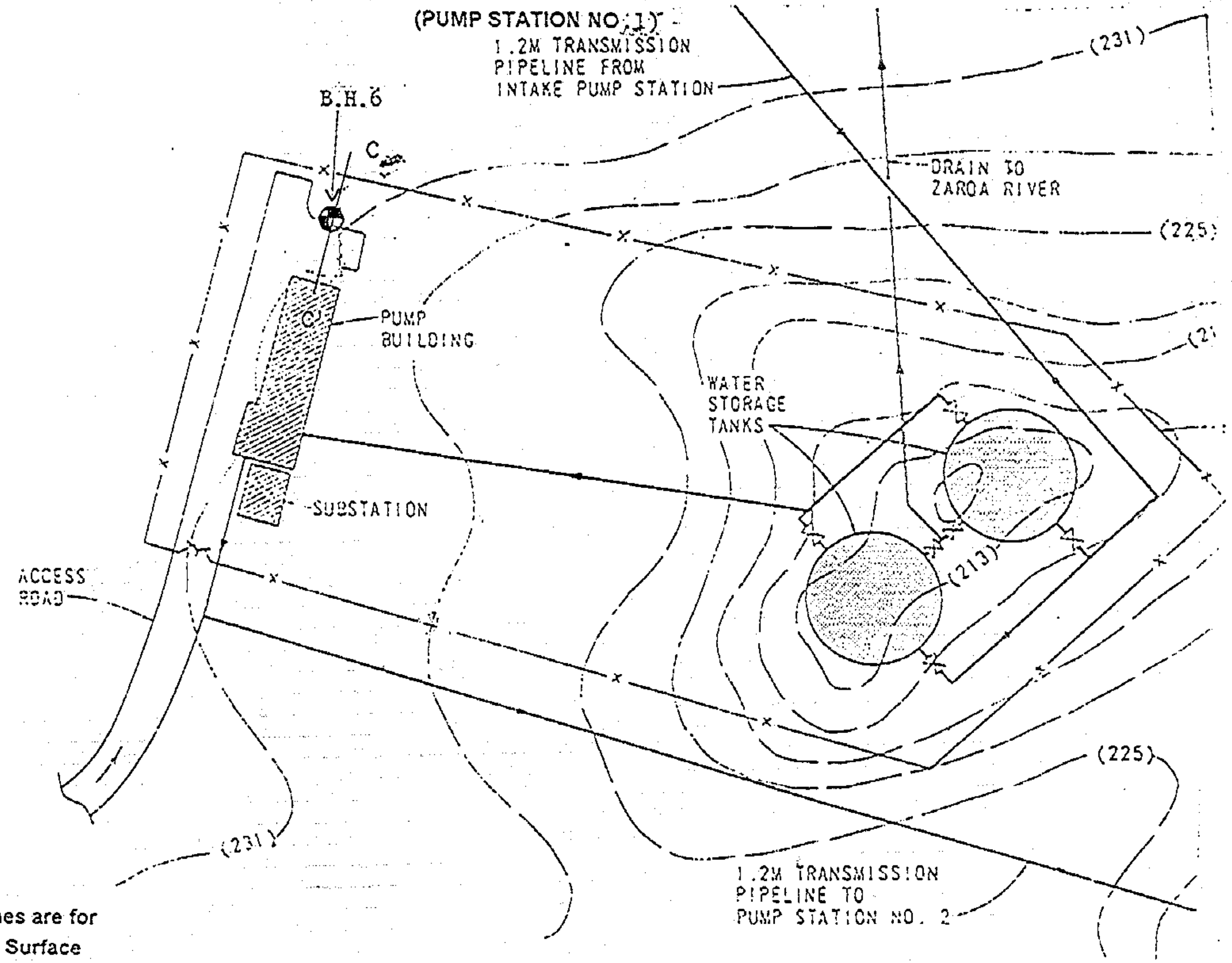


IMPROVEMENT OF ZAI
WATER SUPPLY PROJECT

ZAI WATER TREATMENT PLANT
LAYOUT OF BORINGS
SCALE 1:1000

IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT

(PUMP STATION NO. 1)

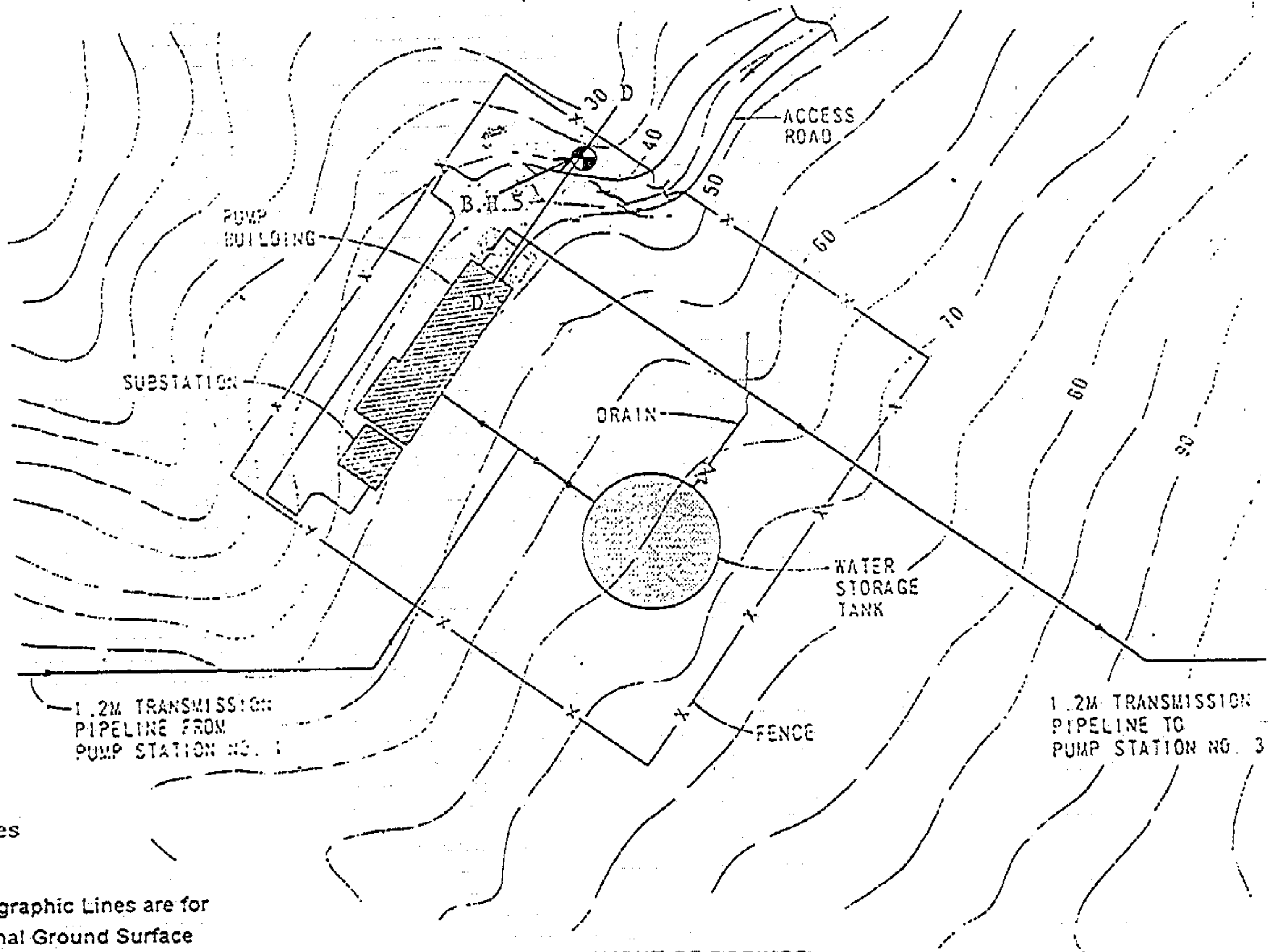


Note: Topographic Lines are for Original Ground Surface Before Construction

LAYOUT OF BORINGS
SCALE 1:1250

IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT

(PUMP STATION NO.2)



Crakes

Note: Topographic Lines are for Original Ground Surface Before Construction

LAYOUT OF BORINGS
SCALE 1:1250

LOG OF BORING NO.1

MESSRS. TOKYO ENGINEERING CONSULTANTS
IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT
ZAI WATER TREATMENT PLANT

412 Double-tube-core barrel
2 in. Standard Penetration Test

LOCATION: E:521.81
N:989.41

DEPTH m	SYMBOL	SAMPLE	DESCRIPTION OF MATERIAL ELEVATION: 800.441	RECOV %	R.Q.D %	BLOWS /ft	UNCONFINED COMPRESSION, Kg/cm2 (O) PL WC% (+) LL 10 20 30 40 50 60	DENS, g/cm3
1			FILL: Intermixed compacted gravels and boulders of marly limestone, chalky marl with brown silty clay	85				
2				50				
3				70		22		
4				75			No. 200 = 65%	
5				50		40		
6				90				
7				90		Ref		
8			Creamish, yellowish, moderately weathered highly fractured, MARLSTONE, medium weak with creamish, yellowish, weathered CHALKY MARL, weak and thin bands of whitish LIMESTONE, strong.	70	10		72 O---> 5 O +	2.00
9				60	10			
10				80	10		510 O--->	

COMPLETION DEPTH: 10m

DATE: June 22, 1996 JOB NO.: 196 - 121

GEOTECHNICAL ENGINEERING AND MATERIALS TESTING COMPANY

LOG OF BORING NO.2

MESSRS. TOKYO ENGINEERING CONSULTANTS
IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT
ZAI WATER TREATMENT PLANT

412 Double-tube-core barrel

LOCATION: E:557.18
N:995.50

ELEVATION: 801.33m

DEPTH m	DESCRIPTION OF MATERIAL	REC. %	R.Q.D. %	BLOWS /ft	UNCONFINED COMPRESSION, Kg/cm2 (O); PL, WC% (+), LL	DENS. g/cm3
1	FILL: Intermixed compacted gravels and boulders of marly limestone, chalky marl with brown silty clay	80				
2		80	0			
3	Creamish, yellowish, moderately weathered highly fractured MARLY LIMESTONE, with creamish weathered CHALKY MARL, weak	90	0			
4	and creamish yellowish weathered, highly fractured MARLSTONE, medium weak	90	0			
5		90	0			
6		60	0			
7		90	20		320 O--->	
8		90	0			
9		60	0			
10		70	0			

Scale: 10 20 30 40 50 60

COMPLETION DEPTH: 10m

DATE: June 22, 1996

JOB NO.: 196 - 121

GEOTECHNICAL ENGINEERING AND MATERIALS TESTING COMPANY

LOG OF BORING NO.3

MESSRS. TOKYO ENGINEERING CONSULTANTS
IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT
ZAI WATER TREATMENT PLANT

412 Double-tube-core barrel

LOCATION: E:655.47
N:950.41

DEPTH m	SYMBOL	SAMPLE	DESCRIPTION OF MATERIAL ELEVATION: 794.19m	RECOV %	R.Q.D %	BLOWS /ft	UNCONFINED COMPRESSION , Kg/cm2 (O) PL — WC% (+) — LL 10 20 30 40 50 60	DENS. g/cm3
1			Brown TOPSOIL, of silty clay with gravels of limestone.	85				
2				90	0			
3			Creamish, yellowish moderately weathered highly fractured MARLY LIMESTONE,	90	10		4.5 O	1.996
4			medium strong with creamish, yellowish weathered, CHALKY MARL, weak and	95	0			
5			creamish yellowish, weathered, highly fractured MARLSTONE, medium weak.	95	10		570 O--->	
6			-Thin bands of whitish LIMESTONE, strong at 6.2m to 6.4m, 7m to 7.1m and 9.4m to 9.4	95	0			
7				95	0			
8				95	10		87 O--->	
9				70	10			
10				70	0			

COMPLETION DEPTH: 10m

DATE: June 20, 1996

JOB NO.: 196 - 121

GEOTECHNICAL ENGINEERING AND MATERIALS TESTING COMPANY

LOG OF BORING NO.4

MESSRS. TOKYO ENGINEERING CONSULTANTS
IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT
ZAI WATER TREATMENT PLANT

412 Double-tube-core barrel

LOCATION: E:640.50
N:1002.93

DEPTH m	SYMBOL	SAMPLE	DESCRIPTION OF MATERIAL ELEVATION: 802.05m	RECOV %	R.Q.D %	BLOWS /ft	UNCONFINED COMPRESSION, Kg/cm2 (O) PL — WC% (+) — LL 10 20 30 40 50 60	DENS. g/cm3
0–1				60				
1–2			FILL: Intermixed compacted gravels and boulders of marly limestone, chalky marl with brown silty clay	80				
2–3				60			No. 200 = 70%	
3–4				90				
4–5				60			No. 200 = 68%	
5–6			Brown SOIL, of silty clay with gravels of limestone	70				
6–7				80	0			
7–8			Creamish, yellowish, moderately weathered highly fractured, MARLSTONE, medium weak with creamish, yellowish, weathered CHALKY MARL, weak and thin bands of whitish LIMESTONE, strong.	85	10		66 O	
8–9				95	20		531 O--->	
9–10				50	0		50 O	

COMPLETION DEPTH: 10m

DATE: June 19, 1996

JOB NO.: 196 - 121

GEOTECHNICAL ENGINEERING AND MATERIALS TESTING COMPANY

LOG OF BORING NO.5

MESSRS. TOKYO ENGINEERING CONSULTANTS
IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT
PUMP STATION No. 2

412 Double-tube-core barrel
2 In. Standard Penetration Test

LOCATION: See Plate 3.2

DEPTH m	SYMBOL	SAMPLE	DESCRIPTION OF MATERIAL ELEVATION:	RECOV %	R.Q.D %	BLOWS /ft	UNCONFINED COMPRESSION, Kg/cm2 (O) PL WC% (+) LL 10 20 30 40 50 60	DENS. g/cm3
1			FILL:	80				
2			Intermixed gravels and boulders of limestone and sandstone.	90				
3		X		70		15	+	
4				80				
5		X		50		Ref	+ No. 200 = 50%	
6				80				
7		X		80		27	+	
8			Brown, clayey sandy SILT	70				
9			Multi coloured moderately to highly weathered, SANDSTONE, medium weak with thin bands of sandy SHALE	80	20			
10				85	15			

COMPLETION DEPTH 10m

DATE: June 23, 1996

JOB NO.: 196 - 121

GEOTECHNICAL ENGINEERING AND MATERIALS TESTING COMPANY

LOG OF BORING NO.6

MESSRS. TOKYO ENGINEERING CONSULTANTS
IMPROVEMENT OF ZAI WATER SUPPLY SYSTEM PROJECT
PUMP STATION No. 1

412 Double-tube-core barrel
2 in. Standard Penetration Test

LOCATION: See Plate 3.3

DEPTH m	SYMBOL	SAMPLE	DESCRIPTION OF MATERIAL / ELEVATION:	RECOV %	R.Q.D %	BLOWS /ft	UNCONFINED COMPRESSION, Kg/cm2 O; PL WC% + LL (10 20 30 40 50 60)	DENS. g/cm3
0–1			ALLUVIAL DEPOSITS: Intermixed gravels and boulders of limestone and sandstone with brown sandy silt and clay	80				
1–2				70				
2–3				20		Ref		
3–4				50				
4–5				90		Ref		
5–6				70				
6–7				90		49	No. 200 = 60%	
7–8				50				
8–9				50		Ref		
9–10				85				

COMPLETION DEPTH: 10m

DATE: June 23, 1996

JOB NO.: 196 - 121

GEOTECHNICAL ENGINEERING AND MATERIALS TESTING COMPANY

TERMS & SYMBOLS USED ON BORING LOGS

MATERIAL TYPE

(Shown In Symbols Column)

SAMPLER TYPE

(Shown In Symbols Column)

DEFINITIONS

Blows / ft. Unless noted otherwise, number of blows of a 140-lb hammer falling 30in. required to produce one foot penetration of 12-in. split-barrel sampler

Ref. : Refusal to penetration in a Standard Penetration Test (S.P.T)

% Recovery : Ratio of length of recovered sample to total length cored

R.Q.D.: Rock Quality Designation representing ratio between total length of intact core greater than 10cm in length to total length cored

No. 200%: Percent by weight passing the NO 200 sieve

Massive: Homogeneous rock strata or bed lacking in sedimentary material

Fissured: Containing shrinkage cracks, frequently filled with soil.

Laminated: Composed of thin layers of varying color and / or texture

Calcareous : Containing appreciable quantities of calcium carbonate

Well graded: Having wide range in grain sizes and substantial amounts of all intermediate particle sizes.

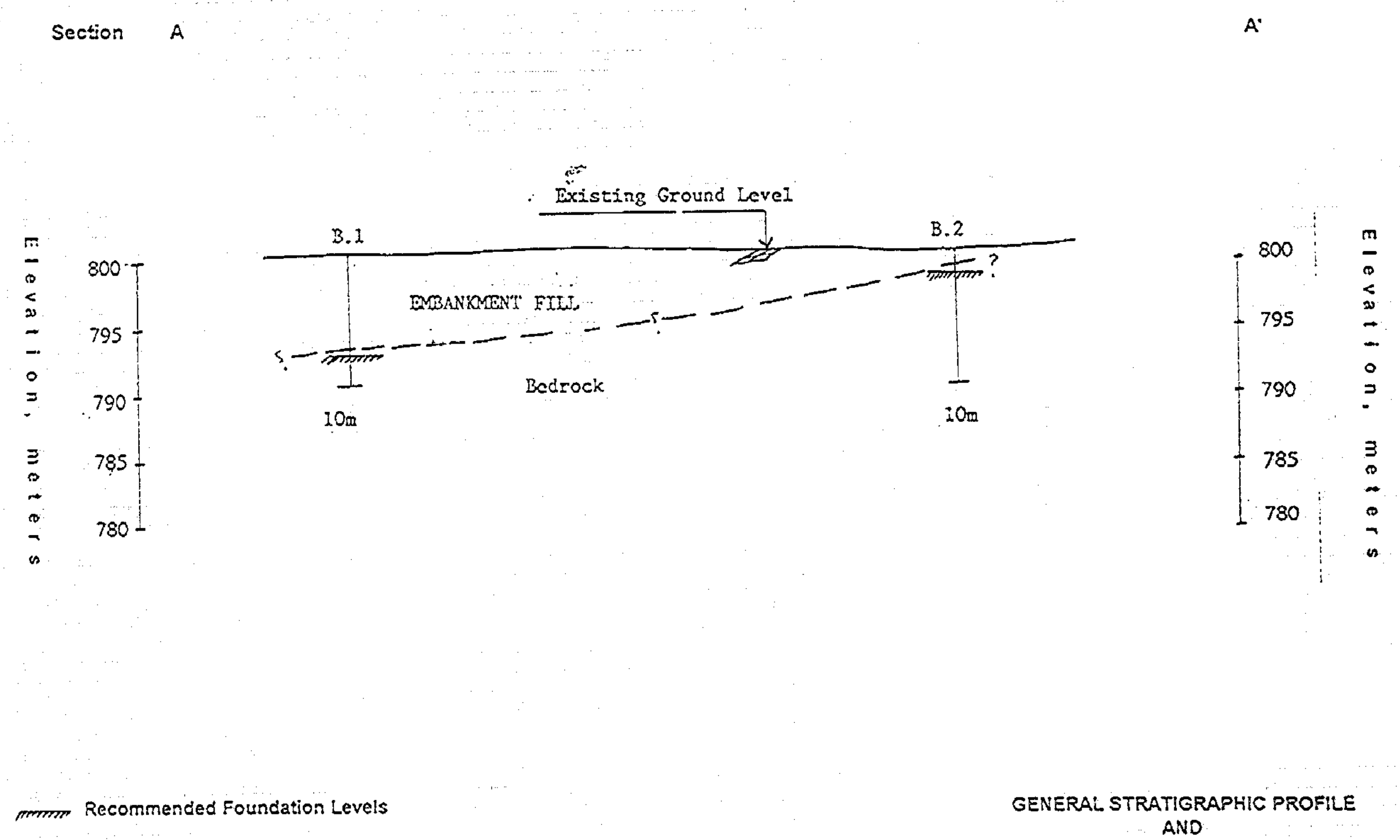
Poorly graded. Predominantly one grain size or having a range of sizes with some intermediate size missing

TERMS DESCRIBING CONSISTANCY OR CONDITION

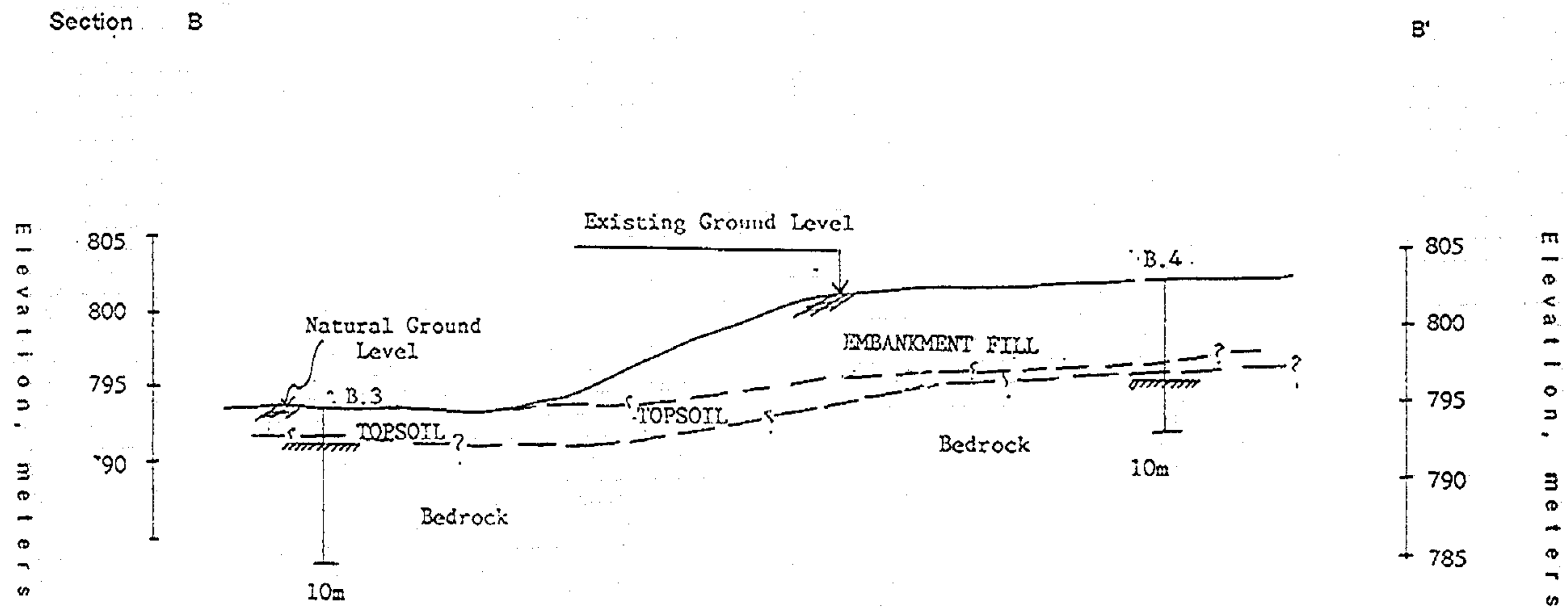
COARSE GRANIED SOILS:	Descriptive Term	Penetration Resistance Blows/ft	Relative Density
(major portion retained on No 200 sieve)			
Includes: (1): clean gravels and sands.	Loose	0 - 10	0 to 40 %
(2) silty or clayey gravels and sands	Medium Dense	10 - 30	40 to 70 %
Condition is rated according to relative density	Dense	30 and above	70 to 100%
as determined by laboratory tests or based on			
standard penetration values			

FINE GRAINED SOILS:	Descriptive Term	Penetrtaion Resistance Blows/ft	Unconfined Compressive strength (Kg/cm2)
(major portion passing No 200 sieve)			
Includes: (1) Inorganic and organic silts and clays	Very soft	Less than 2	0 25 to 0 5
(2) gravelly, sandy, or silty clays and (3) clayey	Soft	2 - 4	0 5 to 1 0
silts. Consistency is rated according to shearing	Firm	4 - 8	1 0 to 2 0
strength or estimated from standard penetration test	Stiff	8 - 15	2 0 to 4 0
values	Very stiff	15 - 30	4 0 and higher
	Hard	30 and higher	

ROCK CORING INFORMATION:	Description of Rock Quality	RQD-Rock Quality Designation	Rock hardness	Unconfined Compressive Strength (Kg/cm2)
Includes (1) measured cored and				
recovered lengths, and (2) hardness	Very poor	0 - 25%	Weak	Less Than 50
rating based on unconfined compressive	Poor	25 - 50%	Medium weak	50 to 150
strength data	Fair	50 - 70%	Medium strong	150 to 500
	Good	70 - 90%	Strong	More than 500
	Excellent	90 - 100%		

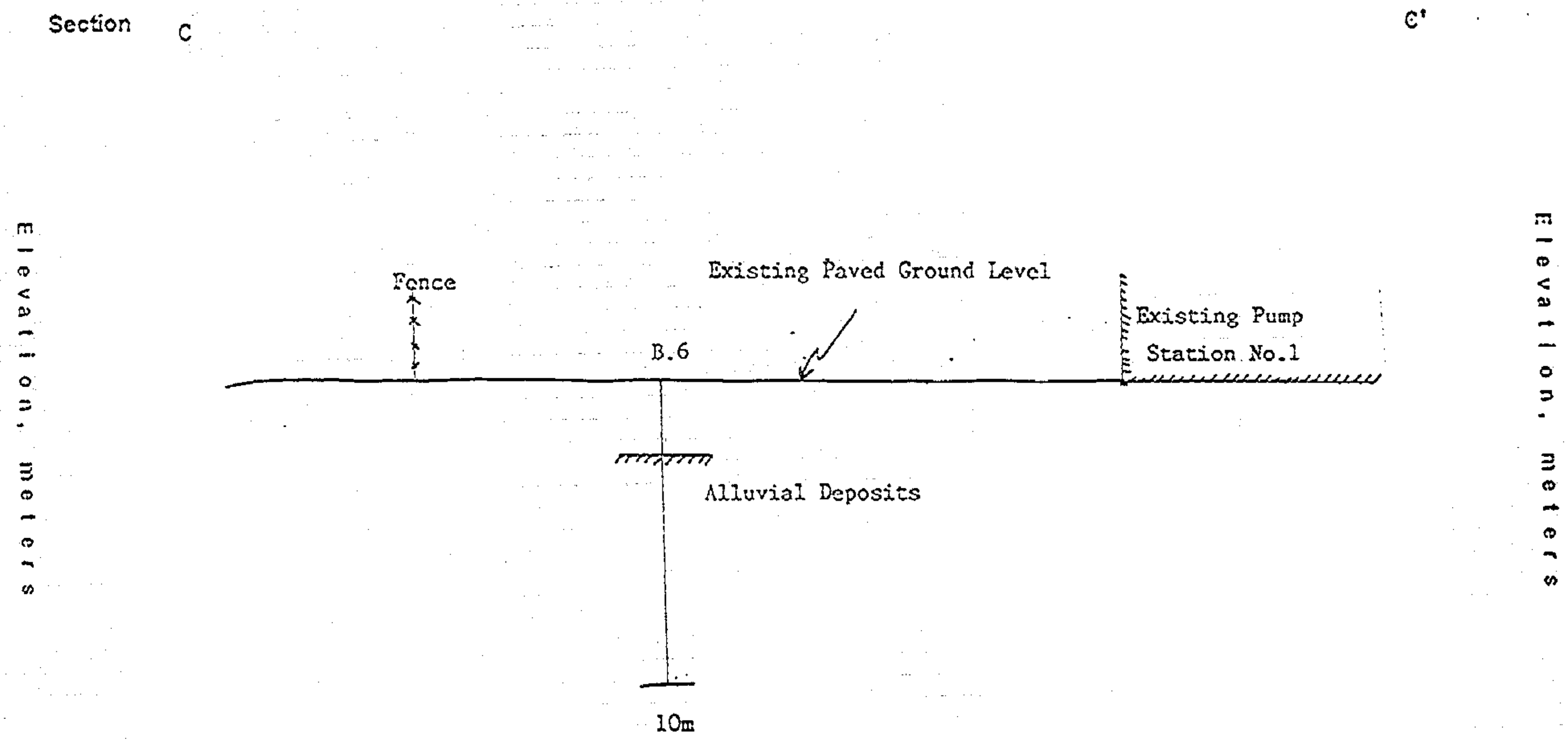


GENERAL STRATIGRAPHIC PROFILE
AND
FOUNDATION LEVELS
Section : A - A'
Scale 1:400



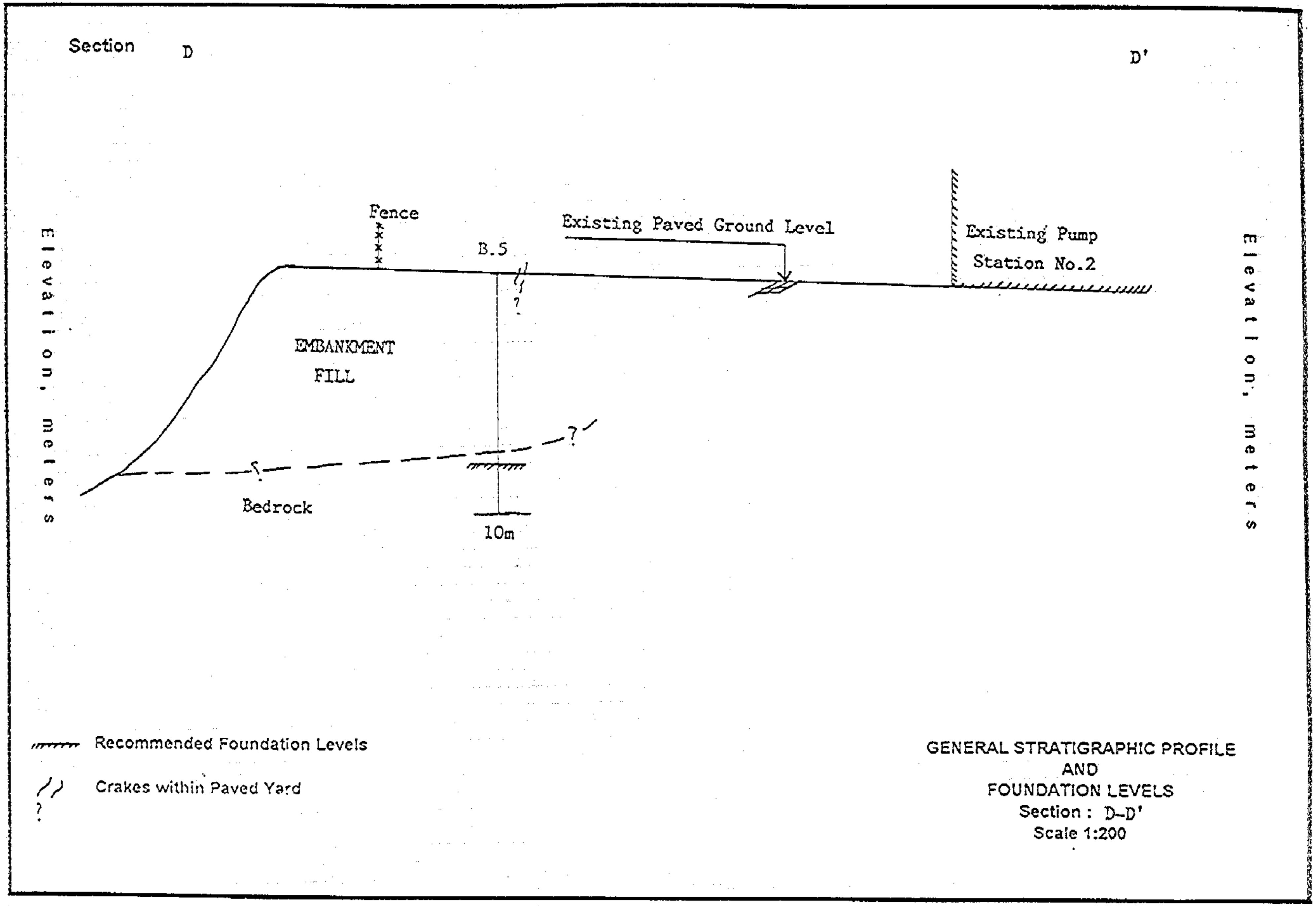
Recommended Foundation Levels

GENERAL STRATIGRAPHIC PROFILE
AND
FOUNDATION LEVELS
Section : B - B'
Scale 1:400



Recommended Foundation Levels

GENERAL STRATIGRAPHIC PROFILE
AND
FOUNDATION LEVELS
Section : C–C'
Scale 1:200


Section D
D'
Elevation, meters
Fence
B.5
Existing Paved Ground Level
Existing Pump Station No.2
EMBANKMENT FILL
Bedrock
10m
Elevation, meters
Recommended Foundation Levels
Crakes within Paved Yard
GENERAL STRATIGRAPHIC PROFILE
AND
FOUNDATION LEVELS
Section : D-D'
Scale 1:200

資料１１　WAJから提出された財務改善計画

WAJから提出された財務改善計画

本プロジェクトの完了後におけるWAJの財務改善を図るための計画であり、WAJの次官から調査団に公文書で提出されたものである。この文書は次の4項目で構成される。

Attachment 1 (11-3ページ)
本プロジェクトが実施された場合（With）と実施されない場合（Without）の財務諸表の見通し及びその根拠となる財務改善対策を示したもの。

Attachment 2 (11-29ページ)
Minutes of Discussionに示された、本プロジェクトを実施するための前提条件について、WAJの考え方及び進捗状況を示したもの。

Attachment 3 (11-35ページ)
WAJのAudit Report 1995

Attachment 4 (11-47ページ)
本プロジェクトの実施に伴うジョ国側負担経費の支出予定

بسم الله الرحمن الرحيم

وزارة المياه والري

سلطة المياه

Ministry of Water & Irrigation

Water Authority

The Hashemite Kingdom of Jordan

Ref. WA/7/2/20324 Date 04.12.1996 التاريخ الرقم

Mr. Harou IWAHORI
Leader
Basic Design Study Team
Japan International Cooperation Agency (JICA)

Reference: The Improvement of the Water Supply System to Greater Amman

Dear Mr. IWAHORI

Enclosed herewith please find the following, including documents supporting WAJ's plan for financial improvements in order to achieve cost recovery at and after the date of completion of the Project:

Attachment 1.

Financial statements.

Attachment 2.

Answers to the pre-requisites as stipulated in the Minutes of Discussions.

Attachment 3.

WAJ's Audit Report 1995.

Attachment 4.

Annual Expenditures.

In addition to other related issues.

Best regards

Eng. Koussai Quteishat
Secretary General

هاتف ٦٨٠١٠٠ - ٦٨٣١٠٠ فاكس ٦٧٩١٤٣ تلكس ٢٢٤٣٩ واج جو ص.ب ٢٤١٢ - ٥٠١٢ عمان - الأردن
Tel. 683100 - 680100 Fax. 679143 Tlx. 22439 WAJ JO Cabel / WATER JO P.O.Box 2412 - 5012 Amman

Attachment 1 FINANCIAL STATEMENTS

Profit Loss Statement
With the Project
Adasiah-Deir Alla-Amman Water Supply Scheme

	1993 JD	1994 JD	1995 JD	1996 JD	1997 JD	1998 JD	1999 JD	2000 JD	2001 JD	2002 JD	2003 JD	2004 JD	2005 JD
Revenue													
Water Sales/ Piped	21,805,262	24,269,095	25,197,198	29,480,722	36,730,564	46,223,677	51,472,104	57,907,277	61,923,308	82,890,980	86,206,619	96,379,000	100,234,160
Water Sales/ Tankers	243,581	332,752	347,280	361,171	375,618	390,643	406,268	422,519	439,420	456,997	475,277	494,288	514,059
Wastewater Surcharge	4,324,811	4,516,323	4,876,173	5,705,122	6,941,993	9,868,553	10,263,295	12,180,170	12,667,377	13,477,935	14,017,052	15,671,065	16,297,907
Wastewater Tax	4,170,716	5,409,723	5,123,458	5,328,396	5,541,532	5,763,193	5,993,721	6,233,470	6,482,809	6,742,121	7,011,806	7,292,278	7,583,969
Subscription Fee	3,164,544	3,616,653	3,302,778	3,434,889	3,572,285	3,715,176	3,863,783	4,018,334	4,179,068	4,346,231	4,520,080	4,700,883	4,888,918
Meters Maintenance Fee	590,307	622,442	645,532	671,353	698,207	726,136	755,181	785,388	816,804	849,476	883,455	918,793	955,545
Bank Interest	132,554	48,431	15,329	15,942	16,580	17,243	17,933	18,650	19,396	20,172	20,979	21,818	22,691
Pipeline Maintenance Fee	0	179,645	5,871	61,839	64,312	66,885	69,560	72,342	75,236	78,246	81,375	84,630	88,016
Sundries (other revenues)	392,533	1,095,264	1,109,653	865,817	900,449	936,467	973,926	1,012,883	1,053,398	1,095,534	1,139,356	1,184,930	1,232,327
Performance Improvements						2,259,315	2,485,667	2,820,399	3,001,204	3,873,036	4,027,958	4,501,774	4,681,845
Total Revenue	34,824,308	40,090,328	40,623,272	45,925,251	54,841,541	69,967,287	76,301,438	85,471,434	90,658,021	113,830,728	118,383,957	131,249,460	136,499,438
Expenses													
Salaries and Wages	15,218,277	16,099,444	16,348,330	17,165,747	18,024,034	18,925,236	19,871,497	20,865,072	21,908,326	23,003,742	24,153,929	25,361,626	26,629,707
Maintenance and Operation	3,702,037	7,351,716	8,467,384	8,890,753	9,335,291	10,002,055	10,502,158	11,027,266	11,578,629	13,282,561	13,946,689	14,644,023	15,376,225
Electricity Bill	15,315,217	17,835,891	21,297,445	22,362,317	23,480,433	25,012,380	25,420,924	25,849,895	26,297,315	34,362,180	36,080,289	37,884,304	39,778,519
Administration and General	497,531	632,735	723,136	759,293	797,257	837,120	878,976	922,925	969,071	1,017,525	1,068,401	1,121,821	1,177,912
Subtotal	34,733,062	41,919,786	46,836,295	49,178,110	51,637,015	54,776,791	56,673,556	58,665,158	60,753,341	71,666,008	75,249,309	79,011,774	82,962,363
Depreciation	24,388,270	27,585,984	29,453,509	30,978,924	32,886,678	35,336,828	39,063,373	43,782,206	48,842,052	51,731,472	53,973,895	56,458,205	52,551,150
Interest on Loans	12,043,867	15,782,498	16,187,979	23,065,133	28,590,260	33,396,910	36,284,950	38,008,457	38,533,716	35,555,788	32,330,233	30,701,856	18,426,374
Total Expenses	71,165,199	85,288,268	92,477,783	103,222,167	113,113,954	123,510,529	132,021,879	140,455,821	148,129,109	158,953,269	161,553,437	166,171,835	153,939,887
Deficit	(36,340,891)	(45,197,940)	(51,854,511)	(57,296,915)	(58,272,413)	(53,543,242)	(55,720,441)	(54,984,387)	(57,471,088)	(45,122,541)	(43,169,480)	(34,922,376)	(17,440,449)
Foreign Exchange (loss) Gain	(2,226,909)	(4,129,084)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)
Deficit for the Year	(38,567,800)	(49,327,024)	(58,780,271)	(64,222,675)	(65,198,173)	(60,469,002)	(62,646,201)	(61,910,147)	(64,396,848)	(52,048,301)	(50,095,240)	(41,848,136)	(24,366,209)
Prior Year Accumulated Deficit	(192,130,668)	(230,698,468)	(280,025,492)	(338,805,763)	(403,028,438)	(468,226,611)	(528,695,613)	(591,341,814)	(653,251,961)	(717,648,809)	(769,697,110)	(819,792,350)	(861,640,485)
Balance	(230,698,468)	(280,025,492)	(338,805,763)	(403,028,438)	(468,226,611)	(528,695,613)	(591,341,814)	(653,251,961)	(717,648,809)	(769,697,110)	(819,792,350)	(861,640,485)	(886,006,694)
Total Accumulative Deficit	(230,698,468)	(280,025,492)	(338,805,763)	(403,028,438)	(468,226,611)	(528,695,613)	(591,341,814)	(653,251,961)	(717,648,809)	(769,697,110)	(819,792,350)	(861,640,485)	(886,006,694)

Japanw.WK4

Balance Sheet
With the Project
Adasiah-Deir Alla-Amman Water Supply Scheme

	1993 JD	1994 JD	1995 JD	1996 JD	1997 JD	1998 JD	1999 JD	2000 JD	2001 JD	2002 JD	2003 JD	2004 JD	2005 JD
Fixed Assets													
Fixed Assets at Cost	526,154,425	569,291,298	627,763,127	619,578,499	657,733,579	706,736,590	781,267,484	875,642,704	976,841,065	1,034,629,476	1,079,477,925	1,129,164,133	1,051,023,022
Accumulated Depreciation	(131,209,514)	(158,020,858)	(187,474,367)	(218,453,291)	(251,339,969)	(286,676,797)	(325,740,170)	(369,522,376)	(418,364,428)	(470,095,900)	(524,069,795)	(580,528,000)	(633,079,150)
Net Book Value	394,944,911	411,270,440	440,288,760	401,125,208	406,393,610	420,059,793	455,527,314	506,120,328	558,476,637	564,533,576	555,408,130	548,636,133	417,943,872
Projects in Progress	49,737,975	54,205,459	40,750,675	90,750,675	128,000,000	174,783,000	199,166,000	176,766,000	129,983,000	105,600,000	100,000,000	100,000,000	100,000,000
Current Assets													
Spare Parts and Materials	11,816,219	11,459,419	13,024,395	13,545,371	14,087,186	14,650,673	15,236,700	15,846,168	16,480,015	17,139,215	17,824,784	18,537,775	19,279,286
Accounts Receivable	14,962,137	16,757,582	15,116,034	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	22,359,957
Other Debt Balances	2,733,185	2,157,188	2,923,298	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Cash	1,628,895	798,357	562,997	1,000,000	1,220,455	3,191,119	4,220,878	5,489,563	7,209,100	9,443,254	10,903,731	11,018,129	7,429,765
Total Current Assets	31,140,436	31,172,546	31,626,724	32,545,371	33,307,641	35,841,792	37,457,578	39,335,731	41,689,115	44,582,469	46,728,515	47,555,904	52,069,008
Total Assets	475,823,322	496,648,445	512,666,159	524,421,254	567,701,251	630,684,585	692,150,892	722,222,059	730,148,752	714,716,045	702,136,645	696,192,037	570,012,880
Capital & Liabilities Equity													
Capital	296,414,377	314,444,110	332,721,904	382,721,904	438,387,904	505,813,904	578,839,904	646,199,904	701,799,904	751,799,904	801,799,904	851,799,904	901,799,904
Accumulated Deficit	(230,698,468)	(280,025,492)	(338,805,763)	(403,028,438)	(468,226,611)	(528,695,613)	(591,341,814)	(653,251,961)	(717,648,809)	(769,697,110)	(819,792,350)	(861,640,485)	(886,006,694)
Net Capital	65,715,909	34,418,618	(6,083,859)	(20,306,534)	(29,838,707)	(22,881,709)	(12,501,910)	(7,052,057)	(15,848,905)	(17,897,206)	(17,992,446)	(9,840,581)	15,793,210
Provision for Contingencies	1,462,686	1,462,548	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417
International Loans	127,344,781	127,342,326	122,268,021	139,424,639	176,897,201	228,482,885	280,684,756	309,674,614	337,921,320	365,479,998	394,153,532	392,146,950	307,106,233
Local Loans	56,598,001	76,879,347	108,427,686	122,497,121	149,803,569	164,066,143	162,032,206	161,899,832	152,153,637	113,558,236	72,341,845	59,775,325	0
Bonds and Debentures	21,325,000	21,325,000	21,325,000	19,867,729	12,900,889	9,428,934	10,347,498	6,111,328	4,334,358	1,986,675	2,045,372	2,522,002	127,322
Total Long term Loans	205,267,782	225,546,673	252,020,707	281,789,489	339,601,659	401,977,962	453,064,460	477,685,774	494,409,315	481,024,909	468,540,749	454,444,277	307,233,555
Current Liabilities													
Accounts Payable	9,065,294	13,887,823	16,349,957	11,349,957	6,349,957	0	0	0	0	0	0	0	0
Retention from Contractors	2,789,951	2,488,070	2,478,086	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Deposits	26,047,917	26,742,896	29,312,926	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000
Past due instalment&interest	158,113,581	182,168,335	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733
Pension Fund	89,029	88,576	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577
Payable to Banks	7,271,173	9,844,906	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	2,956,388
Total Current Liabilities	203,376,945	235,220,606	265,342,894	261,551,882	256,551,882	250,201,925	250,201,925	250,201,925	250,201,925	250,201,925	250,201,925	250,201,925	245,599,698
Total Capital&Liabilities	475,823,322	496,648,445	512,666,159	524,421,254	567,701,251	630,684,595	692,150,892	722,222,059	730,148,752	714,716,045	702,136,645	696,192,038	570,012,880

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CASH FLOW WITH THE PROJECT

Operational Cash Flow	1993 JD	1994 JD	1995 JD	1996 JD	1997 JD	1998 JD	1999 JD	2000 JD	2001 JD	2002 JD	2003 JD	2004 JD	2005 JD
Deficit for the Year	(38,567,800)	(49,327,024)	(58,780,271)	(64,222,675)	(65,198,173)	(60,469,002)	(62,646,201)	(61,910,147)	(64,396,848)	(52,048,301)	(50,095,240)	(41,848,136)	(118,879,448)
Adjustment to Reconcile Net Deficit to Net Cash Provided by Operating Expenses													
Depreciation	24,388,270	26,811,344	29,453,509	30,978,924	32,886,678	35,336,828	39,063,373	43,782,206	48,842,052	51,731,472	53,973,895	56,458,205	52,551,150
Foreign Exchange (Gain) Loss	2,226,909	4,129,084	5,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760
Changes Relating to Operational Assets & Liabilities													
Accounts Receivable	14,962,137	(1,795,445)	1,641,548	116,034	0	0	0	0	0	0	0	0	(7,359,957)
Spare Parts & Materials	(158,122)	356,800	(1,564,976)	(520,976)	(541,815)	(563,487)	(586,027)	(609,468)	(633,847)	(659,201)	(685,569)	(712,991)	(741,511)
Other Debt Balances	(246,810)	575,997	(766,110)	(76,702)	0	0	0	0	0	0	0	0	0
Accounts Payable	2,698,246	4,822,529	2,462,134	(5,000,000)	(5,000,000)	(6,349,957)	0	0	0	0	0	0	0
Retention of Contractors	1,177,587	(301,881)	(9,984)	521,914	0	0	0	0	0	0	0	0	0
Pension Fund	0	(453)	1	0	0	0	0	0	0	0	0	0	0
Deposits	1,979,844	694,979	2,570,030	687,074	0	0	0	0	0	0	0	0	0
Net Cash Used in Operating Activities	8,460,261	(14,034,070)	(18,068,359)	(30,590,647)	(30,927,550)	(25,119,859)	(17,243,095)	(11,811,649)	(9,262,883)	5,949,731	10,118,846	20,822,838	(67,504,006)
Cash Flow from Investing Activities													
Net Changes in Fixed Assets & Project in Progress	(56,033,872)	(47,604,357)	(45,017,045)	(41,815,372)	(75,404,405)	(95,786,011)	(98,913,894)	(71,975,220)	(54,415,361)	(33,405,411)	(39,248,449)	(49,686,208)	78,141,111
Net Cash Used in Investing Activities	(56,033,872)	(47,604,357)	(45,017,045)	(41,815,372)	(75,404,405)	(95,786,011)	(98,913,894)	(71,975,220)	(54,415,361)	(33,405,411)	(39,248,449)	(49,686,208)	78,141,111
Cash Flows from Financing Activities													
Banks Payable	568,976	2,573,733	(2,286,291)	0	0	0	0	0	0	0	0	0	(4,602,227)
Long Term Loans	7,950,176	17,421,122	23,236,059	22,406,019	50,665,955	53,479,870	43,130,989	16,426,869	8,078,244	(22,544,320)	(20,870,397)	(21,136,630)	(56,034,878)
Overdue Instalment&Accrued Interest on Loans	25,392,097	22,783,439	23,933,973	0	0	0	0	0	0	0	0	0	0
Change in Capital	0	18,029,733	18,277,794	50,000,000	55,666,000	67,426,000	73,026,000	67,360,000	55,600,000	50,000,000	50,000,000	50,000,000	50,000,000
Provision for Contingencies		(138)	(76,131)	0	0	0	0	0	0	0	0	0	0
Net Cash Provided by Financing Activities	33,911,249	60,807,889	63,085,404	72,406,019	106,331,955	120,905,870	116,156,989	83,786,869	63,678,244	27,455,680	29,129,603	28,863,370	(10,637,105)
Net Change in Cash & Cash Equivalent	(2,470,701)	(830,538)	(235,360)	437,003	220,455	1,970,664	1,029,759	1,268,685	1,719,537	2,234,154	1,460,477	114,398	(3,588,364)
Cash Beginning of the Year	(4,099,596)	1,628,895	798,357	562,997	1,000,000	1,220,455	3,191,119	4,220,878	5,489,563	7,209,100	9,443,254	10,903,731	11,018,129
Cash End of the Year	1,628,895	798,357	562,997	1,000,000	1,220,455	3,191,119	4,220,878	5,489,563	7,209,100	9,443,254	10,903,731	11,018,129	7,429,765
			0	0	0	0	0	(0)	0	(0)	0	0	(0)

Japanw.WK4

Assumptions

Unaccounted-for-Water in 1997 is 49% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 1998 is 35% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 1999 is 27% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 2000 is 23% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 2001 is 19% Due to Donors Meeting in Frankfurt

Water and Wastewater revenues natural growth increased by 4%

In 1996 water revenue increased by 12.5% due to new tariff
In 1996 wastewater revenue increased by 12.5% due to new surcharge
In 1997 water revenue increased by 13.2% due to new proposed tariff
In 1997 wastewater revenue increased by 17.0% due to new proposed surcharge
In 2000 water revenue increased by 5% due to new tariff
In 2000 wastewater revenue increased by 5% due to new surcharge
In 2002 water revenue increased by 5% due to new tariff
In 2002 wastewater revenue increased by 5% due to new surcharge
In 2004 water revenue increased by 7.5% due to new tariff
In 2004 wastewater revenue increased by 7.5% due to new surcharge

In 1998 water revenue increased by the additional water qua {65% Accounted for}
In 1998 wastewater surcharge increased by the additional discharge of (8*0.9*0.5*0.65 Mcm) {65% Accounted for, 50% of the Country Served & 90% of Consumption Discharged}

In 2002 water revenue increased by the additional water quantity (45*.81Mcm){81% Accounted for}
In 2002 wastewater surcharge increased by the additional discharge of (45*0.9*0.5*0.81 Mcm) {81% Accounted for, 50% of the Country Served & 90% of Consumption Discharged}

Expenses Assumptions

Salaries & wages increased by 5% yearly
In 1998 the salaries increased by 5% According to the project operation
Maintenance & operation increased by 5% yearly
In 1998 the chemicals increased by the cost of the additional quantity (8Mcm*.025 fils)
In 2002 the chemicals increased by the cost of the additional quantity (45Mcm*.025fils)
Electricity bill increased by 5% yearly
In 1998 the electricity bill increased according to the additional water quantity (8Mcm*.150fils/cm)
In 2002 the electricity bill increased according to the additional water quantity (45Mcm*.150fils/cm)
The administration & general increased by 5% yearly
Depreciation calculated by 5% yearly
Interest on local loans calculated by 12%
Interest on foreign loans calculated by 6%
Interest on all Loans are not calculated in the total expenses because of the Cabinet Decision to write-off debts and interests
Depreciaition in taken into consideration in the total expenses

Balance sheet Assumptions

Projects in progress estimated at 50MJD annually
Fixed assets at cost increased by the value of the work in progress every tow years
The assets decreased by the depreciated assets (after 20 years age)
Spare parts increased by 4% annually

The capital increased by the value of government, ministry of planing contribution & grants
The international loans increased by 40% of the value of the work in progress
The local loans increased by 20% of the value of the work in progress & the shortage of financing

Japanw.WK4

Profit Loss Statement
Without the Project
Adasiah-Deir Alla-Amman Water Supply Scheme

	1993 JD	1994 JD	1995 JD	1996 JD	1997 JD	1998 JD	1999 JD	2000 JD	2001 JD	2002 JD	2003 JD	2004 JD	2005 JD
Revenue													
Water Sales/ Piped	21,805,262	24,269,095	25,197,198	29,480,722	36,730,564	44,148,877	49,314,312	52,986,624	56,805,829	59,078,062	61,441,185	63,898,832	66,454,785
Water Sales/ Tankers	243,581	332,752	347,280	361,171	375,618	390,643	406,268	422,519	439,420	456,997	475,277	494,288	514,059
Wastewater Surcharge	4,324,811	4,516,323	4,876,173	5,705,122	6,941,993	7,219,673	7,508,460	7,808,798	8,121,150	8,445,996	8,783,836	9,135,189	9,500,597
Wastewater Tax	4,170,716	5,409,723	5,123,458	5,328,396	5,541,532	5,763,193	5,993,721	6,233,470	6,482,809	6,742,121	7,011,806	7,292,278	7,583,969
Subscription Fee	3,164,544	3,616,653	3,302,778	3,302,778	3,434,889	3,572,285	3,715,176	3,863,783	4,018,334	4,179,068	4,346,231	4,520,080	4,700,883
Meters Maintenance Fee	590,307	622,442	645,532	671,353	698,207	726,136	755,181	785,388	816,804	849,476	883,455	918,793	955,545
Bank Interest	132,554	48,431	15,329	15,942	16,580	17,243	17,933	18,650	19,396	20,172	20,979	21,818	2,269
Pipeline Maintenance Fee	0	179,645	5,871	61,839	64,312	66,885	69,560	72,342	75,236	78,246	81,375	84,630	88,016
Sundries (other revenues)	392,533	1,095,264	1,109,653	865,817	900,449	936,467	973,926	1,012,883	1,053,398	1,095,534	1,139,356	1,184,930	1,232,327
Performance improvements						2,070,368	2,289,162	2,448,718	2,614,656	2,719,242	2,828,012	2,941,132	3,058,778
Total Revenue	34,824,308	40,090,328	40,623,272	45,793,140	54,704,145	64,911,769	71,043,699	75,653,176	80,447,033	83,664,914	87,011,511	90,491,971	94,091,228
Expenses													
Salaries and Wages	15,218,277	16,099,444	16,348,330	17,165,747	18,024,034	18,925,236	19,871,497	20,865,072	21,908,326	23,003,742	24,153,929	25,361,626	26,629,707
Maintenance and Operation	3,702,037	7,351,716	8,467,384	8,890,753	9,335,291	9,802,055	10,292,158	10,806,766	11,347,104	11,914,460	12,510,183	13,135,692	13,792,476
Electricity Bill	15,315,217	17,835,891	21,297,445	22,362,317	23,480,433	23,812,380	24,160,924	24,526,895	24,908,165	26,153,573	27,461,252	28,834,314	30,276,030
Administration and General	497,531	632,735	723,136	759,293	797,257	837,120	878,976	922,925	969,071	1,017,525	1,068,401	1,121,821	1,177,912
Subtotal	34,733,062	41,919,786	46,836,295	49,178,110	51,637,015	53,376,791	55,203,556	57,121,658	59,132,666	62,089,300	65,193,765	68,453,453	71,876,125
Depreciation	24,388,270	27,585,984	29,453,509	30,978,924	32,886,678	35,336,828	39,063,373	43,782,206	48,842,052	51,731,472	53,973,895	56,458,205	52,551,150
Interest on Loans	12,043,867	15,782,498	16,187,979	23,073,060	28,607,382	33,550,058	36,594,749	38,770,989	39,772,019	38,423,571	37,288,559	38,718,288	29,944,577
Total Expenses	71,165,199	85,288,268	92,477,783	103,230,093	113,131,075	122,263,677	130,861,677	139,674,853	147,746,737	152,244,343	156,456,218	163,629,946	154,371,852
Deficit	(36,340,891)	(45,197,940)	(51,854,511)	(57,436,953)	(58,426,930)	(57,351,909)	(59,817,979)	(64,021,677)	(67,299,705)	(68,579,429)	(69,444,706)	(73,137,975)	(60,280,624)
Foreign Exchange (loss) Gain	(2,226,909)	(4,129,084)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)	(6,925,760)
Deficit for the Year	(38,567,800)	(49,327,024)	(58,780,271)	(64,362,713)	(65,352,690)	(64,277,669)	(66,743,739)	(70,947,437)	(74,225,465)	(75,505,189)	(76,370,468)	(80,063,735)	(67,206,384)
Prior Year Accumulated Deficit	(192,130,668)	(230,698,468)	(280,025,492)	(338,805,763)	(403,168,476)	(468,521,166)	(532,798,835)	(599,542,573)	(670,490,010)	(744,715,475)	(820,220,664)	(896,591,132)	(976,654,867)
Balance	(230,698,468)	(280,025,492)	(338,805,763)	(403,168,476)	(468,521,166)	(532,798,835)	(599,542,573)	(670,490,010)	(744,715,475)	(820,220,664)	(896,591,132)	(976,654,867)	(1,043,861,251)
Total Accumulative Deficit	(230,698,468)	(280,025,492)	(338,805,763)	(403,168,476)	(468,521,166)	(532,798,835)	(599,542,573)	(670,490,010)	(744,715,475)	(820,220,664)	(896,591,132)	(976,654,867)	(1,043,861,251)

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Without the Project
Adasiah-Deir Alla-Amman Water Supply Scheme

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
	JD	JD	JD	JD	JD	JD	JD	JD	JD	JD	JD	JD	JD
Fixed Assets													
Fixed Assets at Cost	526,154,425	569,291,298	627,763,127	619,578,499	657,733,579	706,736,590	781,267,484	875,642,704	976,841,065	1,034,629,476	1,079,477,925	1,129,164,133	1,051,023,022
Accumulated Depreciation	(131,209,514)	(158,020,858)	(187,474,367)	(218,453,291)	(251,339,969)	(286,676,797)	(325,740,170)	(369,522,376)	(418,364,428)	(470,095,900)	(524,069,795)	(580,528,000)	(633,079,150)
Net Book Value	394,944,911	411,270,440	440,288,760	401,125,208	406,393,610	420,059,793	455,527,314	506,120,328	558,476,637	564,533,576	555,408,130	548,636,133	417,943,872
Projects in Progress	49,737,975	54,205,459	40,750,675	90,750,675	128,000,000	174,783,000	199,166,000	176,766,000	129,983,000	105,600,000	100,000,000	100,000,000	100,000,000
Current Assets													
Spare Parts and Materials	11,816,219	11,459,419	13,024,395	13,545,371	14,087,186	14,650,673	15,236,700	15,846,168	16,480,015	17,139,215	17,824,784	18,537,775	19,279,286
Accounts Receivable	14,962,137	16,757,582	15,116,034	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	15,000,000	22,359,957
Other Debt Balances	2,733,185	2,157,188	2,923,298	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Cash	1,628,895	798,357	562,997	1,000,000	1,220,455	1,776,390	1,340,081	1,093,473	1,256,598	1,000,000	1,000,000	1,000,000	1,000,000
Total Current Assets	31,140,436	31,172,546	31,626,724	32,545,371	33,307,641	34,427,063	34,576,781	34,939,641	35,736,613	36,139,215	36,824,784	37,537,775	45,639,243
Total Assets	475,823,322	496,648,445	512,666,159	524,421,254	567,701,251	629,269,856	689,270,095	717,825,969	724,196,250	706,272,791	692,232,914	686,173,908	563,583,115
Capital & Liabilities Equity													
Capital	296,414,377	314,444,110	332,721,904	382,721,904	438,387,904	505,813,904	578,839,904	646,199,904	701,799,904	751,799,904	801,799,904	851,799,904	901,799,904
Accumulated Deficit	(230,698,468)	(280,025,492)	(338,805,763)	(403,168,476)	(468,521,166)	(532,798,835)	(599,542,573)	(670,490,010)	(744,715,475)	(820,220,664)	(896,591,132)	(976,654,867)	(1,043,861,251)
Net Capital	65,715,909	34,418,618	(6,083,859)	(20,446,572)	(30,133,262)	(26,984,931)	(20,702,669)	(24,290,106)	(42,915,571)	(68,420,760)	(94,791,228)	(124,854,963)	(142,061,347)
Provision for Contingencies	1,462,686	1,462,548	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417	1,386,417
International Loans	127,344,781	127,342,326	122,268,021	139,556,750	177,182,561	231,035,351	285,848,068	322,383,479	358,559,712	398,585,248	441,123,791	462,416,041	403,381,654
Local Loans	56,598,001	76,879,347	108,427,686	122,497,121	149,803,569	164,066,143	162,032,206	161,899,832	152,153,637	120,903,805	90,176,094	91,444,380	47,847,313
Bonds and Debentures	21,325,000	21,325,000	21,325,000	19,875,656	12,910,084	9,564,951	10,504,148	6,244,422	4,810,130	3,616,156	4,135,915	5,580,108	7,429,380
Total Long term Loans	205,267,782	225,546,673	252,020,707	281,929,527	339,896,214	404,666,445	458,384,422	490,527,733	515,523,479	523,105,209	535,435,800	559,440,529	458,658,347
Current Liabilities													
Accounts Payable	9,065,294	13,687,823	16,349,957	11,349,957	6,349,957	0	0	0	0	0	0	0	0
Retention from Contractors	2,789,951	2,488,070	2,478,086	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000	3,000,000
Deposits	26,047,917	26,742,896	29,312,926	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000	30,000,000
Past due installments & interest	158,113,581	182,168,335	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733	209,554,733
Pension Fund	89,029	88,576	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577	88,577
Payable to Banks	7,271,173	9,844,906	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	7,558,615	2,956,388
Total Current Liabilities	203,376,945	235,220,606	265,342,894	261,551,882	256,551,882	250,201,925	250,201,925	250,201,925	250,201,925	250,201,925	250,201,925	250,201,925	245,599,698
Total Capital&Liabilities	475,823,322	496,648,445	512,666,159	524,421,254	567,701,251	629,269,856	689,270,095	717,825,969	724,196,250	706,272,791	692,232,914	686,173,908	563,583,115

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CASH FLOW WITH THE PROJECT

Operational Cash Flow	1993 JD	1994 JD	1995 JD	1996 JD	1997 JD	1998 JD	1999 JD	2000 JD	2001 JD	2002 JD	2003 JD	2004 JD	2005 JD
Deficit for the Year	(38,567,800)	(49,327,024)	(58,780,271)	(64,362,713)	(65,352,690)	(64,277,669)	(66,743,739)	(70,947,437)	(74,225,465)	(75,505,189)	(76,370,468)	(80,063,735)	(118,879,448)
Adjustment to Reconcile Net													
Deficit to Net Cash Provided													
by Operating Expenses													
Depreciation	24,388,270	26,811,344	29,453,509	30,978,924	32,886,678	35,336,828	39,063,373	43,782,206	48,842,052	51,731,472	53,973,895	56,458,205	52,551,150
Foreign Exchange (Gain) Loss	2,226,909	4,129,084	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760	6,925,760
Changes Related to Opera-													
tional Assessts & Liabilities													
Accounts Receivable	14,962,137	(1,795,445)	1,641,548	116,034	0	0	0	0	0	0	0	0	(7,359,957)
Spare Parts & Materials	(158,122)	356,800	(1,564,976)	(520,976)	(541,815)	(563,487)	(586,027)	(609,468)	(633,847)	(659,201)	(685,569)	(712,991)	(741,511)
Other Debt Balances	(246,810)	575,997	(766,110)	(76,702)	0	0	0	0	0	0	0	0	0
Account Payable	2,698,246	4,822,529	2,462,134	(5,000,000)	(5,000,000)	(6,349,957)	0	0	0	0	0	0	0
Retention of Contractors	1,177,587	(301,881)	(9,984)	521,914	0	0	0	0	0	0	0	0	0
Pension Fund	0	(453)	1	0	0	0	0	0	0	0	0	0	0
Deposits	1,979,844	694,979	2,570,030	687,074	0	0	0	0	0	0	0	0	0
Net Cash Used in													
Operating Activities	8460261	(14,034,070)	(18,068,359)	(30,730,685)	(31,082,067)	(28,928,525)	(21,340,633)	(20,848,939)	(19,091,499)	(17,507,158)	(16,156,381)	(17,392,761)	(67,504,006)
Cash Flow from													
Investment Activities													
Net Cash in Fixed Assets													
& Project in Progress	(56,033,872)	(47,604,357)	(45,017,045)	(41,815,372)	(75,404,405)	(95,786,011)	(98,913,894)	(71,975,220)	(54,415,361)	(33,405,411)	(39,248,449)	(49,686,208)	78,141,111
Net Cash Used in													
Investment Activities	(56,033,872)	(47,604,357)	(45,017,045)	(41,815,372)	(75,404,405)	(95,786,011)	(98,913,894)	(71,975,220)	(54,415,361)	(33,405,411)	(39,248,449)	(49,686,208)	78,141,111
Cash Flow from													
Investing Activities													
Banks Payable	568,976	2,573,733	(2,286,291)	0	0	0	0	0	0	0	0	0	(4,602,227)
Long Term Loans	7,950,176	17,421,122	23,236,069	22,546,057	50,820,472	57,288,536	47,228,527	25,464,159	17,906,860	912,569	5,404,830	17,078,969	(56,034,878)
Overdue Installement&Accrued													
Interest on Loans	25,392,097	22,783,439	23,933,973	0	0	0	0	0	0	0	0	0	0
Cahnge in Capital	0	18,029,733	18,277,794	50,000,000	55,666,000	67,426,000	73,026,000	67,360,000	55,600,000	50,000,000	50,000,000	50,000,000	50,000,000
Provision for Contingencies		(138)	(76,131)	0	0	0	0	0	0	0	0	0	0
Net Cash Provided by Financing Activities	33,911,249	60,807,889	63,085,404	72,546,057	106,486,472	124,714,536	120,254,527	92,824,159	73,506,860	50,912,569	55,404,830	67,078,969	(10,637,105)
Net Cahnge in Cash &													
Cash Equivalent	(2,470,701)	(830,538)	(235,360)	437,003	0	(220,455)	(776,390)	(340,081)	(93,473)	(256,598)	0	0	0
Cash Beginning of the Year	(4,099,596)	1,628,895	798,357	562,997	1,000,000	1,220,455	1,776,390	1,340,081	1,093,473	1,256,598	1,000,000	1,000,000	1,000,000
Cash End of the Year	1,628,895	798,357	562,997	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
			0	0	0	(0)	0	0	(0)	0	(0)	(0)	(0)

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Assumptions

Unaccounted-for-Water in 1997 is 49% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 1998 is 35% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 1999 is 27% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 2000 is 23% Due to Donors Meeting in Frankfurt
Unaccounted-for-Water in 2001 is 19% Due to Donors Meeting in Frankfurt

Water and Wastewater revenues natural growth increased by 4%

In 1996 water revenue increased by 12.5% due to new tariff
In 1996 wastewater revenue increased by 12.5% due to new surcharge
In 1997 water revenue increased by 13.2% due to new proposed tariff
In 1997 wastewater revenue increased by 17.0% due to new proposed surcharge

Expenses Assumptions

Salaries & wages increased by 5% yearly
Maintenance & operation increased by 5% yearly
Electricity bill increased by 5% yearly
The administration & general increased by 5% yearly
Depreciation calculated by 5% yearly
Interest on local loans calculated by 12%
Interest on foreign loans calculated by 6%
Interest on all Loans are not calculated in the total expenses because of the Cabinet Decision to write-off debts and interests
Depreciaition in taken into consideration in the total expenses

Balance sheet Assumptions

Projects in progress estimated at 50MJD annually
Fixed assets at cost increased by the value of the work in progress every tow years
The assets decreased by the depreciated assets (after 20 years age)
Spare parts increased by 4% annually

The capital increased by the value of government, ministry of planing contribution & grants
The international loans increased by 40% of the value of the work in progress
The local loans increased by 20% of the value of the work in progress & the shortage of financing

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A Draft Study for the Improvement of the Financial Efficiency of WAJ

Further to the negotiations held in Frankfurt on the 16 and 17 of September 1996, and the signed Minutes of Meeting, the Water Authority hereby presents its plan for the improvement of the financial efficiency of the Water Authority which was agreed upon under the heading "GREATER AMMAN WATER SUPPLY II" of the said Minutes of Meeting.

This paper concentrates on a plan for the improvement of the financial efficiency of the Water Authority in Amman. The plan will be proportionally reflected on the sector as a whole. The main reason for selecting Amman as a target to address such an improvement plan is due to the fact that in 1995:

1. the number of subscribers was 265,000 (total number of subscribers was 579,000) representing almost 46% of the total number of subscribers;
2. the billed water consumption has reached 43% of the total water produced; and
3. expenses represented more than 50% of the total expenses.

Introduction

In 1995 the Water Authority pumped 246.1 million cubic meters of water to various governorates. Table 1 represents the total quantities of water produced to each governorate with the corresponding number of subscribers:

Table 1

Governorate	Water Supply in 1995 in MCM	Percentage of the Total Supplied	Total Number of Subscribers	Percentage of the Total Number
Amman	106.5	43.28	265,100	45.8
Zarqa	032.8	13.33	077,600	13.4
Irbid	039.3	15.97	118,000	20.4
Mafraq	016.5	06.70	021,100	03.6
Balqa	020.4	08.29	037,100	06.4
Karak	007.2	02.93	024,200	04.2
Tafila	002.2	00.89	008,500	01.5
Ma'an	021.2	08.61	026,400	04.6
Total	**246.1**	**100.00**	579,000	**100.00**

At the end of 1995, unaccounted-for-water was calculated at the rate of 54% with the physical losses at approximately 30%. This is of course, as we all agree, a serious problem in a country where shortage of water resources, due to natural and unnatural causes, can be considered as an icon.

The Water Authority is fully aware of this problem and admits its serious implications on the technical soundness and financial viability of its services. To that affect, the Water Authority has mobilised its own and other's financial and technical resources to address this issue.

In 1989, the Water Authority utilised part of the proceeds of the WB's Loan No. 2694-JO, and launched its first three major contracts for the rehabilitation of Zarqa city water network. The city water supply system was originally constructed under KfW, USAID, WB and IDB "Zarqa Ruseifa Water and Wastewater Project". The scheme was successfully implemented. A recent pilot study concluded that the physical losses were measured at 13%. The results, of course, are encouraging and lie within the acceptable standard and can be very well used as an indicator to formulate future plans and projections.

Other rehabilitation schemes for the cities of Sult, Irbid, and Ramtha (financed by EIB), are either implemented or are under-construction. EIB is also financing further parts of the physical rehabilitation of Amman water network.

KfW, among other schemes, is heavily and actively involved in the technical and financial improvement of the water supply system of Amman. Its comprehensive approach addresses the problem facing the complex waterworks system right from the source up to the charging point (end users). KfW has, thankfully, extended loans and grants in various forms to comprehensively address deficiencies in the system through the following schemes:

- **(ASTSUP KfW Sector Programme II Grant portion), towards the inventory, monitoring, control, and protection of the groundwater resources all over the Kingdom;**
- **(KfW Sector Loan II), part of the proceeds of the programme was intended for the procurement of water meters with high accuracy at all flows particularly at low flow aiming at the reduction of administrative losses;**
- **(KfW Grant Hydraulic Analysis of Amman Water Supply System), which will eventually lead to a rehabilitation plan for conservation of both water and electricity;**
- **(KfW Amman Water Supply Loan I), physical rehabilitation of part of Amman water network and partially towards Operation Management Support "OMS";**
- **(CTA Grant), for timely and proper implementation of the new investments in the physical rehabilitation of Amman water network through the Project Management Unit "PMU";**
- **(KfW Amman Water Supply [eminent] Loan II), physical rehabilitation of further parts of Amman water network and partially towards Operation Management Support;**

The above-mentioned schemes, in addition to the OMS scheme granted by GTZ, were thoroughly discussed during the appraisal stage of each project and solely meant to address, inter alia, administrative, technical and financial shortfalls in the supply and delivery systems.

The nature and objectives of these new projects are very well directed and targeted. The projected outcome of implementing such new investments will surely:

- reduce cost and expenses;
- increase revenues; and
- enhance the quantities of water available at no extra operational cost.

Towards the improvement of collection efficiency, the Water Authority has recently concluded an agreement with GTZ/OMS. Under the said agreement, the Water Authority will contribute JD 192,000 while OMS's contribution will be approximately JD 50,000 in the form of management and advisory services. The project goals and objectives are summarised as follows:

- Establishment of an up-to-date subscribers data base enabling the gegraphyical location of subscribers under ANIS;
- Control unregistered subscriptions that are never billed (illegal house-connections);
- Cancel repeated subscriptions;
- Enable more than one collector to work in the same zone and flexibility of transferring him from one zone to another;
- Link water information with sanitary information regarding the location to follow up on subscribers who were not charged the sanitary disposal service fees and other cases of default; and
- Reduce UFW by replacing malfunctioning water meters, determining meters which were not read and sealing meters.

The project will commence as early as December 1996, the duration of the project is 15 months. It is expected that the project outcomes will lead to a considerable revenue generation, in fact OMS staff predicted that MJD 3-4 additional revenues, without any major investment, will be generated.

On other fronts for combating administrative loses, the Water Authority had, in 1995 and 1996, replaced about 60,000 water meters with more accurate new ones supplied under KfW Sector Programme II. The new water meters are capable of registering much higher percentage under low flows (15 l/h at an accuracy rate of +5% to -25%).

Further more, the Water Authority is seriously discussing the involvement of the private sector in its operation management activities in Amman. The terms of reference for such an involvement is under careful analysis right now. The aim of this new approach is to deregulate part of the sector for a specified number of years (for example 4 years). Involvement on a larger scale could be achieved only after detailed evaluation and assessment of the technical, financial and administrative performance in the initial four years contract.

As for the restructuring of the water tariff, the Water Authority has just completed the survey to identifying consumption type i.e. domestic, commercial or industrial. Data has already been downloaded into the central computer and draft reports have been already issued. Any new restructuring of water tariff will take into consideration consumption type. It is intended that a new structure will be presented for approval as early as Sep. 1997. The effect of such restructuring on revenue will be apparent on the balance sheet of 1998. It is assumed that a minimum of 10% of an additional revenue will be generated by the enforcement of the revised structure. The new structure, however, will introduce full maintenance and operational cost recovery from commercial and industrial consumption. As for domestic consumption, consumers with lifeline consumption will be protected, i.e. subsidised. Full maintenance and operational cost plus part of the investment cost from big consumers will be applied to allow for certain investment as well as to allow for the provision of cross-subsidy. At the moment, in-house discussion is ongoing to define realistic lifeline consumption. There are two schools, one school suggesting that the lifeline consumption is 40 m3/family/3 months, other suggesting 50 m3/family/3 months, (average family size is 7).

Tariff Restructuring

"It is agreeable that cost recovery and budget deficit should not only be subjected to treatment by tariff prescriptions but more accurately through careful diagnosis of the syndrome".

It is somehow true that the present water tariff structure is not recovering maintenance and operational cost, but other measures, to complement tariff, are under-way to improve the financial performance of the Sector. However, in the last two decades, many forms of tariff restructuring scenarios were thoroughly considered to improve, along with other activities, the financial efficiency of WAJ.

A new approach is under serious discussion at the moment. The main features of this approach is to continue protecting the two lowest life-line consumption brackets in the present structure namely <0-20> and <21-40>, *(the average family size for these brackets with lifeline consumption is surveyed as 12 members, i.e. equivalent to 36.5 l/c/d)*. Actual figures for 1995 show that the number of bills, consumption, and revenue, as a percentage of the total, for the two lowest brackets were 64%, 26.81%, and 11.39% respectively.

As for bracket <21-40> the rate per cubic meter will be reduced to, for example, 0.130 JD/m3 and will be charged accordingly. Other brackets consumption will be subjected to a new approach whereby the last cubic meter consumed will be charged at the marginal rate. This approach will yield an additional amount of MJD 2 (equivalent to 16%). The same approach will be used for wastewater tariff yielding an additional amount of MJD 0.6 (equivalent to 18%).

It is also proposed that when the field survey by OMS is completed, a separate tariff for commercial and industrial connections will be applied.

Draft Plan for Technical & Financial Improvements

Scheme	Expected Completion Date	Expected Reduction of UFW %	Total Qty Produced in 1995 M3	Average Water Tariff JD/M3	New UFW %	Water Saved & Sold MM3	Expected Average Additional Revenue JD
Physical Losses							
Rehabilitation of Amman Network Contract 1A	June 1997	1	106,500,000	0.304	53	1,065,000	323,760
Rehabilitation of Amman Network Contract 1B	Feb. 1998	1	106,500,000	0.399	52	1,065,000	424,935
Rehabilitation of Amman Network/ Marqa	Sep. 1999	1	106,500,000	0.399	51	1,065,000	424,935
Rehabilitation of Amman Network/ Hashmi	Sep. 1999	1	106,500,000	0.399	50	1,065,000	424,935
Rehabilitation of Amman Network/ Sahabb	Sep. 1999	1	106,500,000	0.399	49	1,065,000	424,935
Amman Total Restructuring and Rehabilitation	Sep. 1998	3	106,500,000	0.399	46	3,195,000	1,274,805
Amman Total Restructuring and Rehabilitation	Sep. 1999	3	106,500,000	0.399	43	3,195,000	1,274,805
Amman Total Restructuring and Rehabilitation	Sep. 2000	3	106,500,000	0.399	40	3,195,000	1,274,805
Amman Total Restructuring and Rehabilitation	Sep. 2001	3	106,500,000	0.399	37	3,195,000	1,274,805
Administrative Losses							
OMS Field Survey	Dec. 1997	4	106,500,000	0.399	33	4,260,000	1,699,740
OMS Field Survey	Dec. 1998	4	106,500,000	0.399	29	4,260,000	1,699,740
Efficient Management	Dec. 1998	6	106,500,000	0.399	23	6,390,000	2,549,610
Efficient Management	Dec. 1999	2	106,500,000	0.399	21	2,130,000	849,870
Efficient Management	Dec. 2000	1	106,500,000	0.399	20	1,065,000	424,935
Efficient Management	Dec. 2001	1	106,500,000	0.399	19	1,065,000	424,935
Saving in Electricity	Dec. 1998						842,075
Saving in Electricity	Dec. 1999						842,075
Saving in Electricity	Dec. 2000						842,075
Saving in Electricity	Dec. 2001						842,075
Projection	**End of 2001**	**35**			**19**	**37,275,000**	**18,139,850**

General Remarks on 1994 & 1995 Financial Performance

In 1994, the Water Authority's has nearly approached total recovery of maintenance and operational cost. The total revenue and expenses were JD 40,090,328 and JD 41,919,786 respectively. In 1995 a new water and wastewater tariff with an increase of 13.5% was introduced. Unfortunately this increase was totally absorbed by the increase of the electricity bill coincided in the same year. The increase of both water and electricity tariff resulted in reducing the percentage of WAJ's recovery from 96% to 87%.

Summary of Assumptions for the Improvement Plan for (Amman)

• UFW in 1995		54%
Physical Losses Estimated at		30%
Administrative Losses Estimated at		24%
Variable Costs for 1995	JD	18,451,061
Wages &Salaries	JD	02,600,812
• **Total Operating Expenses**	**JD**	**21,051,873**(1)

Projections

Revenue in 1995	JD	12,652,166
Expected Additional Revenue Due to the Reduction of UFW (Physical Losses), (Table 2)	JD	06,246,225
Expected Additional Revenue Due to the Reduction of UFW (Administrative Losses), (Table 2)	JD	11,045,556
Expected Additional Revenue Due to Tariff Restructuring, (Table 2)	JD	01,063,606
Expected Additional Revenue Due to Reduction in M&O Costs, (Table 2)	JD	03,368,300(2)

• **Projected Total Revenue**

Draft Plan for Technical
and Financial Improvements
Proposed Revenues vs. Expenses/Amman

Item	Expected Completion Date	Expected Reduction of UFW %	New UFW %	Expected Average Additional Revenue JD	Expected Piped Water Revenue JD	Expected Wastewater Surcharge JD	Expected Other Revenues JD	Expected Expenses in JD	Pecentage of Recovery %
Expected for 1996					12.652.166	3.163.986	2.000.000	20,407,813	87.30
Expected for 1997					16.607.294	4.195.101	2.140.000	21,836,359	105.07
Amman/ Total Restructuring, Rehabilitation, and Management	June 1997	5	49	2.098.850	18.706.144	4.195.101	2.289.800	23,364,905	107.82
Amman Total Restructuring, Rehabilitation, and Administrative	Feb. 1998	14	35	6,787.906	25.494.050	4.404.856	2.450.086	25,000,448	129.39
Amman Total Restructuring, Rehabilitation, and Administrative	Sep. 1999	8	27	3.781,475	29.275.525	4.625,099	2.621.592	26,750,479	136.53
Amman Total Restructuring, Rehabilitation, and Administrative	Sep. 2000	4	23	2,311.775	31.587.300	4.856.354	2.805.103	28,623,013	137.12
Amman Total Restructuring, Rehabilitation, and Administrative	Sep. 2001	4	19	2.311.775	33.899.075	5,099,171	3.001.461	30,626,624	137.13
Projections	**End of 2001**	**. 35**	**19**	**17,291,781**					

Electricty	Total Bill JD Mixed Sources	Amman Portion JD
Khaww	1,272,000	636,000
Zai	5,866,000	5,162,080
Azraq	1,339,000	1,339,204
Walah	1,005,000	1,005,305
Qastal	720,000	720,000
Amman/ within	3,409,000	3,409,321
Total Amman Electricity Bill	13,611,000	**12,271,910**
Wages and Salaries	2,600,812	**2,600,812**
M&Operational Expenses	4,200,000	**4,200,000**
Total Expenses Amman 95		**19,072,722**
WAJ's Total Expenses 95		**46,836,296**
Percentage of the Total Expenses		**40.7**
Total Electricity Bill + Wages		**19,072,722**
WAJ'a Total Electricity Bill 1995		**22,840,933**

Benchmarks

Private Operator is Hired
Capital Investment is Available
New Tariff Structure is Implemented in 1997

Draft Plan for Technical
and Financial Improvements
Proposed Revenues vs. Expenses/Governorates

Item	Expected Completion Date	Expected Reduction of UFW %	New UFW %	Expected Average Additional Revenue JD	Expected Piped Water Revenue JD	Expected Wastewater Surcharge JD	Expected Other Revenues JD	Expected Expenses in JD	Percentage of Recovery %
Expected for 1996					15.832.307	1.544.336	8.549.901	28,278,476	91.68
Expected for 1997					17.466.387	2.023.020	9.148.394	30,257,970	94.65
Amman/ Total Restructuring, Rehabilitation, and Management	June 1997	2	52	707.500	22.097.776	2.103.941	9,514.330	32,376,027	104.14
Rehabilitation, and Administrative	Feb. 1998	2	50	707,500	25.385.934	2.188.098	9.894.903	34,642,349	108.16
Rehabilitation, and Administrative	Sep. 1999	2	48	707.500	28,805.617	2.275,622	10.290.699	37,067,314	111.61
Rehabilitation, and Administrative	Sep. 2000	2	46	707.500	31.579.035	2.366.647	10.702.327	39,662,026	112.57
Rehabilitation, and Administrative	Sep. 2001	2	44	707.500	34,546.593	2,461,313	11.130.420	42,438,368	113.43
Projections	**End of 2001**	**10**	**44**	**3,537,500**					

Electricty	Total Bill JD Mixed Sources	Amman Portion JD
Khaww	1,272,000	636,000
Zai	5,866,000	5,162,080
Azraq	1,339,000	1,339,204
Walah	1,005,000	1,005,305
Qastal	720,000	720,000
Amman/ within	3,409,000	3,409,321
Total Amman Electricity Bill	13,611,000	12,271,910
Wages and Salaries	2,600,812	2,600,812
M&Operational Expenses	4,200,000	4,200,000
Total Expenses Amman 95		19,072,722
WAJ's Total Expenses 95		46,836,295
Percentage of the Total Expenses		40.7
Total Electricity Bill + Wages		19,072,722
WAJ'a Total Electricity Bill 1995		22,240,933

Benchmarks

New Tariff Structure is Implemented in 1997
Private Operator is Hired
Capital Investment is Available

Draft Plan for Technical and Financial Improvements
Proposed Revenues vs. Expenses

Item	Expected Completion Date	Expected Reduction of UFW %	New UFW %	Expected Average Additional Revenue JD	Expected Piped Water Revenue JD	Expected Wastewater Surcharge JD	Expected Other Revenues JD	Expected Expenses in JD	Pocentage of Recovery %
Expected for 1996					28,484,473	4,708,322	10,549,901	48,686,289	89.85
Expected for 1997					34,073,681	6,218,121	11,288,394	52,094,329	99.01
Amman/ Total Restructuring, Rehabilitation, and Management	June 1997			2,806,350	40,803,920	6,299,042	11,804,130	55,740,932	105.68
Rehabilitation, and Administrative	Feb. 1998			7,495,406	50,879,984	6,592,954	12,344,989	59,642,797	117.06
Rehabilitation, and Administrative	Sep. 1999			4,488,975	58,081,142	6,900,721	12,912,291	63,817,793	122.06
Rehabilitation, and Administrative	Sep. 2000			3,019,275	63,166,335	7,223,001	13,507,431	68,285,039	122.86
Rehabilitation, and Administrative	Sep. 2001			3,019,275	68,445,668	7,560,485	14,131,881	73,064,991	123.37
Projections	End of 2001								

Electricty	Total Bill JD Mixed Sources	Amman Portion JD
Khaww	1,272,000	636,000
Zai	5,866,000	5,162,080
Azraq	1,339,000	1,339,204
Walah	1,005,000	1,005,305
Qastal	720,000	720,000
Amman/ within	3,409,000	3,409,321
Total Amman Electricity Bill	13,611,000	**12,271,910**
Wages and Salaries	2,600,812	**2,600,812**
M&Operational Expenses	4,200,000	**4,200,000**
Total Expenses Amman 96		**19,072,722**
WAJ's Total Expenses 96		**46,836,295**
Percentage of the Total Expenses		**40.7**
Total Electricity Bill + Wages		**19,072,722**
WAJ'a Total Electricity Bill 1996		**22,840,933**

Benchmarks

New Tariff Structure is Implemented in 1997
Private Operator is Hired
Capital Investment is Available

Amman 1995/ Water

Bracket	Consumption up to m³/Qtr	No. of Bills	Consumption in Bracket (m³)	Consumption in Bracket (%)	Average Cons. per Bill	Accumulated Consumption	Accumulated Consumption (%)	Tariff 1996 JD/m³	Revenue per Bracket (JD)	Revenue per Bracket (%)	Accumulated Revenue (JD)	Accumulated Revenue (%)	Average Bill JD/Qtr	Effective Price per m³
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7a)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0000-0010	10	148,723	647,383	1.51%	4.35	647,383	1.51%	0.100	223,085	1.71%	223,085	1.71%	1.50	0.345
0011-0020	20	150,046	2,449,177	5.69%	16.32	3,096,560	7.20%	0.100	255,929	1.96%	479,014	3.67%	1.71	0.104
0021-0030	30	152,410	3,998,162	9.30%	26.23	7,094,722	16.50%	0.190	485,323	3.72%	964,337	7.38%	3.18	0.121
0031-0040	40	122,983	4,428,541	10.30%	36.01	11,523,263	26.79%	0.190	620,053	4.75%	1,584,390	12.13%	5.04	0.140
0041-0050	50	91,627	4,218,590	9.81%	46.04	15,741,853	36.60%	0.450	752,841	5.76%	2,337,231	17.89%	8.22	0.178
0051-0060	60	60,477	3,367,904	7.83%	55.69	19,109,757	44.43%	0.450	730,296	5.59%	3,067,527	23.48%	12.08	0.217
0061-0070	70	42,120	2,764,370	6.43%	65.63	21,874,127	50.86%	0.450	676,124	5.18%	3,743,651	28.66%	16.05	0.245
0071-0080	80	29,622	2,236,316	5.20%	75.50	24,110,443	56.06%	0.550	608,660	4.66%	4,352,311	33.32%	20.55	0.272
0081-0090	90	20,507	1,752,049	4.07%	85.44	25,862,492	60.13%	0.550	523,304	4.01%	4,875,615	37.33%	25.52	0.299
0091-0100	100	17,729	1,705,041	3.96%	96.17	27,567,533	64.10%	0.550	547,582	4.19%	5,423,197	41.52%	30.89	0.321
0101-0150	150	35,234	4,247,240	9.88%	120.54	31,814,773	73.97%	0.700	1,589,979	12.17%	7,013,176	53.69%	45.13	0.374
0151-0200	200	11,200	1,934,499	4.50%	172.72	33,749,272	78.47%	0.700	856,059	6.55%	7,869,235	60.25%	76.43	0.443
0201-0250	250	4,683	1,045,656	2.43%	223.29	34,794,928	80.90%	0.700	500,016	3.83%	8,369,251	64.07%	106.77	0.478
0251-0300	300	2,592	711,710	1.65%	274.58	35,506,638	82.56%	0.730	356,524	2.73%	8,725,775	66.80%	137.55	0.501
0301-0400	400	2,333	804,426	1.87%	344.80	36,311,064	84.43%	0.730	419,198	3.21%	9,144,973	70.01%	179.68	0.521
0401-0500	500	1,138	509,520	1.18%	447.73	36,820,584	85.61%	0.730	274,758	2.10%	9,419,731	72.12%	241.44	0.539
0501-0600	600	552	303,525	0.71%	549.86	37,124,109	86.32%	0.730	167,101	1.28%	9,586,832	73.40%	302.72	0.551
0601-0700	700	399	258,906	0.60%	648.89	37,383,015	86.92%	0.730	144,491	1.11%	9,731,323	74.50%	362.13	0.558
0701-1000	1000	627	520,560	1.21%	830.24	37,903,575	88.13%	0.730	295,282	2.26%	10,026,605	76.76%	470.94	0.567
>1000	10000	1,006	5,104,308	11.87%	5,073.86	43,007,883	100.00%	0.730	3,035,222	23.24%	13,061,827	100.00%	3,017.12	0.595
TOTAL		396,003	43,007,883	100.00%	48.00				13,061,827	100.00%			14.58	0.304

Operational Expenses 21,051,873 0.489 JD/m³ (14)=(13)/(6

TARIF97N.wk4 04/12/96 O.K.

Amman/ Proposed Tariff Restructuring/ 97/ Water

Bracket	No. of Bills	Consumption in Bracket (m^3)	Average Cons. per Bill m^3/Qtr	Tariff 1996 JD/m^3	Average Bill 1996 JD/Qtr	Expected Revenues 1996	Tariff 1997 JD/m^3	Average Bill JD/Qtr	Change to 1996 Tariff %	Revenue per Bracket (JD)
(1)	(3)	(4)	(6)	(8)	(8a)	(8b)	(15)	(16)	(16a)	(17)
0000-0010	148,723	647,383	4.35	0.100	2.000	297,446		2.000	0.0%	297,446
0011-0020	150,046	2,449,177	16.32	0.100	2.000	300,092		2.000	0.0%	300,092
0021-0030	152,410	3,998,162	26.23	0.190	3.184	485,313	0.130	3.410	7.1%	519,761
0031-0040	122,983	4,428,541	36.01	0.190	5.042	620,053	0.130	4.681	-7.2%	575,710
0041-0050	91,627	4,218,590	46.04	0.450	8.518	780,516	0.185	8.519	0.0%	780,596
0051-0060	60,477	3,367,904	55.69	0.450	12.860	777,737	0.241	13.421	4.4%	811,652
0061-0070	42,120	2,764,370	65.63	0.450	17.334	730,103	0.299	19.601	13.1%	825,603
0071-0080	29,622	2,236,316	75.50	0.550	22.322	661,231	0.356	26.867	20.4%	795,841
0081-0090	20,507	1,752,049	85.44	0.550	27.790	569,893	0.414	35.331	27.1%	724,529
0091-0100	17,729	1,705,041	96.17	0.550	33.695	597,376	0.476	45.759	35.8%	811,259
0101-0150	35,234	4,247,240	120.54	0.700	50.181	1,768,065	0.617	74.394	48.3%	2,621,201
0151-0200	11,200	1,934,499	172.72	0.700	86.706	971,109	0.730	126.088	45.4%	1,412,184
0201-0250	4,683	1,045,656	223.29	0.700	122.101	571,801	0.730	163.000	33.5%	763,329
0251-0300	2,592	711,710	274.58	0.730	158.743	411,462	0.730	200.443	26.3%	519,548
0301-0400	2,333	804,426	344.80	0.730	210.006	489,945	0.730	251.706	19.9%	587,231
0401-0500	1,138	509,520	447.73	0.730	285.145	324,495	0.730	326.845	14.6%	371,950
0501-0600	552	303,525	549.86	0.730	359.701	198,555	0.730	401.401	11.6%	221,573
0601-0700	399	258,906	648.89	0.730	431.988	172,363	0.730	473.688	9.7%	189,001
0701-1000	627	520,560	830.24	0.730	564.375	353,863	0.730	606.075	7.4%	380,009
>1000	1,006	5,104,308	5,073.86	0.730	3,662.221	3,684,195	0.730	3703.921	1.1%	3,726,145
TOTAL	896,008	43,007,883	48.00	0.343		14,765,612	0.401			17,234,662

increase compared to 1996 of J	2,469,050
% of increase	17

private tankers provide water @ 1.0 JD/m^3

Benchmarks:

12 l/hr (starting flow of water meter) gives	25.92	m^3/Qtr
60 l/c/d with 7 people per subscriber gives	37.80	m^3/Qtr
120 l/c/d with 7 people per subscriber gives	75.60	m^3/Qtr
150 l/c/d with 7 people per subscriber gives	94.50	m^3/Qtr

Policy:

Flat rate only for lowest bracket until 20 m^3/Qtr

Until 20 m^3/Qtr shall pay min charge of 2.000 JD/Qtr

> 20 <= 40 m^3: according to consumption @ 0.130 JD/m^3

Above 40 m^3/Qtr the following progressive tariff will be applied

Consump/Qtr (m^3)	40	140	above
JD/m^3	0.150	0.730	0.730

Tariff 1996 JD/m^3	Consumption m^3/Qtr	New Tariff JD/m^3
0.450	41	0.156
0.550	71	0.330
0.700	101	0.504
0.700	125	0.643
0.700	150	0.730
0.730	251	0.730

TARIF97N.wk4 04/12/96 O.K.

Amman 1995/ Wastewater

Bracket	Collection up to m³/Qtr	No. of Bills	Collection in Bracket (m³)	Collection in Bracket (%)	Average Coll. per Bill	Accumulated Collection	Accumulated Collection (%)	Tariff 1996 JD/m³	Revenue per Bracket (JD)	Revenue per Bracket (%)	Accumulated Revenue (JD)	Accumulated Revenue (%)	Average Bill JD/Qtr	Effective Price per m³
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7a)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0000-0010	10	122,141	527,750	1.66%	4.32	527,750	1.66%	0.030	54,963	1.74%	54,963	1.74%	0.45	0.104
0011-0020	20	118,625	1,930,357	6.09%	16.27	2,458,107	7.75%	0.030	60,583	1.91%	115,546	3.65%	0.51	0.031
0021-0030	30	117,062	3,065,991	9.67%	26.19	5,524,098	17.43%	0.040	99,227	3.14%	214,773	6.79%	0.85	0.032
0031-0040	40	94,106	3,387,729	10.69%	36.00	8,911,827	28.11%	0.040	116,688	3.69%	331,461	10.48%	1.24	0.034
0041-0050	50	69,833	3,212,707	10.13%	46.01	12,124,534	38.25%	0.110	139,705	4.42%	471,166	14.89%	2.00	0.043
0051-0060	60	46,005	2,561,463	8.08%	55.68	14,685,997	46.33%	0.110	136,533	4.32%	607,699	19.21%	2.97	0.053
0061-0070	70	31,590	2,072,921	6.54%	65.62	16,758,918	52.87%	0.110	125,158	3.96%	732,857	23.16%	3.96	0.060
0071-0080	80	22,010	1,661,981	5.24%	75.51	18,420,899	58.11%	0.220	121,100	3.83%	853,957	26.99%	5.50	0.073
0081-0090	90	15,091	1,289,437	4.07%	85.44	19,710,336	62.18%	0.220	113,014	3.57%	966,971	30.56%	7.49	0.088
0091-0100	100	12,885	1,238,958	3.91%	96.16	20,949,294	66.08%	0.220	124,096	3.92%	1,091,067	34.48%	9.63	0.100
0101-0150	150	25,005	3,008,227	9.49%	120.31	23,957,521	75.57%	0.280	386,984	12.23%	1,478,051	46.71%	15.48	0.129
0151-0200	200	7,713	1,333,711	4.21%	172.92	25,291,232	79.78%	0.280	220,818	6.98%	1,698,869	53.69%	28.63	0.166
0201-0250	250	3,299	737,358	2.33%	223.51	26,028,590	82.11%	0.280	136,174	4.30%	1,835,043	58.00%	41.28	0.185
0251-0300	300	1,840	505,466	1.59%	274.71	26,534,056	83.70%	0.300	99,503	3.14%	1,934,546	61.14%	54.08	0.197
0301-0400	400	1,659	571,783	1.80%	344.66	27,105,839	85.50%	0.300	118,724	3.75%	2,053,270	64.90%	71.56	0.208
0401-0500	500	807	361,107	1.14%	447.47	27,466,946	86.64%	0.300	78,495	2.48%	2,131,765	67.38%	97.27	0.217
0501-0600	600	371	203,878	0.64%	549.54	27,670,824	87.29%	0.300	45,553	1.44%	2,177,318	68.82%	122.78	0.223
0601-0700	700	289	187,514	0.59%	648.84	27,858,338	87.88%	0.300	42,659	1.35%	2,219,977	70.16%	147.61	0.227
0701-1000	1000	408	338,895	1.07%	830.63	28,197,233	88.95%	0.300	78,767	2.49%	2,298,744	72.65%	193.06	0.232
>1000	10000	731	3,503,658	11.05%	4,792.97	31,700,891	100.00%	0.300	865,242	27.35%	3,163,986	100.00%	1,183.64	0.247
TOTAL		691,470	31,700,291	100.00%	45.85				3,163,986	100.00%			4.58	0.100

Operational Expenses 21,051,873 0.664 JD/m³ (14)=(13)/(6

TARIF97N.wk4 04/12/96 O.K.

Amman/ Proposed Tariff Restructuring/ 97/ Wastewater

Bracket	No. of Bills	Consumption in Bracket (m^3)	Average Cons. per Bill m^3/Qtr	Tariff 1996 JD/m^3	Average Bill 1996 JD/Qtr	Expected Revenues 1996	Tariff 1997 JD/m^3	Average Bill JD/Qtr	Change to 1996 Tariff %	Revenue per Bracket (JD)
(1)	(3)	(4)	(6)	(8)	(8a)	(8b)	(15)	(16)	(16a)	(17)
0000-0010	122,141	527,750	4.32	0.030	0.600	73,285		0.600	0.0%	73,285
0011-0020	118,625	1,930,357	16.27	0.030	0.600	71,175		0.600	0.0%	71,175
0021-0030	117,062	3,065,991	26.19	0.040	0.848	99,227	0.030	0.786	-7.3%	91,980
0031-0040	94,106	3,387,729	36.00	0.040	1.240	116,688	0.030	1.080	-12.9%	101,632
0041-0050	69,833	3,212,707	46.01	0.110	2.061	143,899	0.042	1.933	-6.2%	134,969
0051-0060	46,005	2,561,463	55.68	0.110	3.125	143,746	0.061	3.416	9.3%	157,161
0061-0070	31,590	2,072,921	65.62	0.110	4.218	133,251	0.081	5.331	26.4%	168,402
0071-0080	22,010	1,661,981	75.51	0.220	5.912	130,129	0.101	7.628	29.0%	167,894
0081-0090	15,091	1,289,437	85.44	0.220	8.098	122,202	0.121	10.329	27.6%	155,878
0091-0100	12,885	1,238,958	96.16	0.220	10.454	134,701	0.142	13.684	30.9%	176,316
0101-0150	25,005	3,008,227	120.31	0.280	16.985	424,720	0.191	22.931	35.0%	573,398
0151-0200	7,713	1,333,711	172.92	0.280	31.717	244,632	0.300	51.875	63.6%	400,113
0201-0250	3,299	737,358	223.51	0.280	45.883	151,367	0.300	67.053	46.1%	221,207
0251-0300	1,840	505,466	274.71	0.300	60.713	111,712	0.300	82.413	35.7%	151,640
0301-0400	1,659	571,783	344.66	0.300	81.697	135,535	0.300	103.397	26.6%	171,535
0401-0500	807	361,107	447.47	0.300	112.541	90,820	0.300	134.241	19.3%	108,332
0501-0600	371	203,878	549.54	0.300	143.161	53,113	0.300	164.861	15.2%	61,163
0601-0700	289	187,514	648.84	0.300	172.951	49,983	0.300	194.651	12.5%	56,254
0701-1000	408	338,895	830.63	0.300	227.488	92,815	0.300	249.188	9.5%	101,669
>1000	731	3,503,658	4,792.97	0.300	1,416.190	1,035,235	0.300	1437.890	1.5%	1,051,097
TOTAL	691,470	31,790,891	45.85	0.112		3,558,234	0.132			4,195,101

increase compared to 1996 of J	636,867
% of increase	18

Policy:

Flat rate only for lowest bracket until 20 m^3/Qtr

Until 20 m^3/Qtr shall pay min charge of 0.600 JD/Qtr

> 20 <= 40 m^3; according to consumption @ 0.030 JD/m^3

Above 40 m^3/Qtr the following progressive tariff will be applied

Collection/Qtr (m^3)	40	165	above
JD/m^3	0.030	0.280	0.300

Tariff 1996 JD/m^3	Consumption m^3/Qtr	New Tariff JD/m^3
0.110	41	0.032
0.220	71	0.092
0.280	101	0.152
0.280	125	0.200
0.280	150	0.250
0.300	251	0.300

TARIF97N.wk4 04/12/96 O.K.

Governorates/1995/ Water

Bracket	Consumption up to m³/Qtr	No. of Bills	Consumption in Bracket (m³)	Consumption in Bracket (%)	Average Cons. per Bill	Accumulated Consumption	Accumulated Consumption (%)	Tariff 1996 JD/m³	Revenue per Bracket (JD)	Revenue per Bracket (%)	Accumulated Revenue (JD)	Accumulated Revenue (%)	Average Bill JD/Qtr	Effective Price per m³
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7a)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0000-0010	10	158,884	910,630	1.63%	5.73	910,630	1.63%	0.065	158,113	1.14%	158,113	1.14%	1.00	0.174
0011-0020	20	213,295	3,543,077	6.33%	16.61	4,453,707	7.95%	0.065	253,091	1.82%	411,204	2.96%	1.19	0.071
0021-0030	30	231,273	6,120,289	10.93%	26.46	10,573,996	18.89%	0.090	467,201	3.36%	878,405	6.31%	2.02	0.076
0031-0040	40	178,024	6,455,606	11.53%	36.26	17,029,602	30.42%	0.090	511,461	3.68%	1,389,866	9.99%	2.87	0.079
0041-0050	50	125,499	5,787,393	10.34%	46.12	22,816,995	40.75%	0.320	632,518	4.55%	2,022,384	14.54%	5.04	0.109
0051-0060	60	79,220	4,420,266	7.90%	55.80	27,237,261	48.65%	0.320	625,006	4.49%	2,647,390	19.03%	7.89	0.141
0061-0070	70	52,594	3,457,015	6.17%	65.73	30,694,276	54.82%	0.320	570,140	4.10%	3,217,530	23.13%	10.84	0.165
0071-0080	80	36,315	2,745,192	4.90%	75.59	33,439,468	59.73%	0.520	538,745	3.87%	3,756,275	27.00%	14.84	0.196
0081-0090	90	23,908	2,043,983	3.65%	85.49	35,483,451	63.38%	0.520	471,554	3.39%	4,227,829	30.39%	19.72	0.231
0091-0100	100	20,208	1,948,119	3.48%	96.40	37,431,570	66.86%	0.520	504,959	3.63%	4,732,788	34.02%	24.99	0.259
0101-0150	150	34,510	4,147,404	7.41%	120.18	41,578,974	74.26%	0.700	1,331,870	9.57%	6,064,658	43.59%	38.59	0.321
0151-0200	200	9,882	1,714,433	3.06%	173.49	43,293,407	77.33%	0.700	648,766	4.66%	6,713,424	48.26%	65.65	0.378
0201-0250	250	3,867	863,725	1.54%	223.36	44,157,132	78.87%	0.700	375,356	2.70%	7,088,780	50.95%	97.07	0.435
0251-0300	300	2,066	571,049	1.02%	276.40	44,728,181	79.89%	0.730	270,542	1.94%	7,359,322	52.90%	130.95	0.474
0301-0400	400	1,973	680,602	1.22%	344.96	45,408,783	81.11%	0.730	339,274	2.44%	7,698,596	55.34%	171.96	0.498
0401-0500	500	1,048	472,217	0.84%	450.59	45,881,000	81.95%	0.730	247,901	1.78%	7,946,497	57.12%	236.55	0.525
0501-0600	600	546	299,951	0.54%	549.36	46,180,951	82.48%	0.730	161,404	1.16%	8,107,901	58.28%	295.61	0.538
0601-0700	700	403	261,415	0.47%	648.67	46,442,366	82.95%	0.730	142,436	1.02%	8,250,337	59.30%	353.44	0.545
0701-1000	1000	613	510,643	0.91%	833.02	46,953,009	83.86%	0.730	285,603	2.05%	8,535,940	61.36%	465.91	0.559
>1000	10000	1,162	9,034,483	16.14%	7,774.94	55,987,492	100.00%	0.730	5,376,308	38.64%	13,912,248	100.00%	4,626.77	0.595
TOTAL		1,175,290	55,987,492	100.00%	47.64				13,912,248	100.00%			11.84	0.248

Operational Expenses	21,051,873	0.376	JD/m³	(14)=(13)/(6

Tarif97G.wk4 04/12/96 O.K.

Governorates/Proposed Tariff Restructuring/ 97/ Water

Bracket	No. of Bills	Consumption in Bracket (m^3)	Average Cons. per Bill m^3/Qtr	Tariff 1996 JD/m^3	Average Bill 1996 JD/Qtr	Expected Revenues 1996	Tariff 1997 JD/m^3	Average Bill JD/Qtr	Change to 1996 Tariff %	Revenue per Bracket (JD)
(1)	(3)	(4)	(6)	(8)	(8a)	(8b)	(15)	(16)	(16a)	(17)
0000-0010	158,884	910,630	5.73	0.065	1.300	206,549		1.300	0.0%	206,549
0011-0020	213,295	3,543,077	16.61	0.065	1.300	277,284		1.300	0.0%	277,284
0021-0030	231,273	6,120,289	26.46	0.090	1.882	435,190	0.070	1.852	-1.6%	428,420
0031-0040	178,024	6,455,606	36.26	0.090	2.764	491,993	0.070	2.538	-8.2%	451,892
0041-0050	125,499	5,787,393	46.12	0.320	5.057	634,625	0.107	4.953	-2.0%	621,637
0051-0060	79,220	4,420,266	55.80	0.320	8.155	646,051	0.151	8.415	3.2%	666,646
0061-0070	52,594	3,457,015	65.73	0.320	11.334	596,083	0.195	12.840	13.3%	675,301
0071-0080	36,315	2,745,192	75.59	0.520	15.609	566,834	0.240	18.109	16.0%	657,635
0081-0090	23,908	2,043,983	85.49	0.520	20.757	496,252	0.284	24.275	16.9%	580,363
0091-0100	20,208	1,948,119	96.40	0.520	26.430	534,092	0.333	32.087	21.4%	648,417
0101-0150	34,510	4,147,404	120.18	0.700	42.426	1,464,116	0.439	52.810	24.5%	1,822,480
0151-0200	9,882	1,714,433	173.49	0.700	79.743	788,024	0.678	117.697	47.6%	1,163,081
0201-0250	3,867	863,725	223.36	0.700	114.651	443,354	0.730	163.051	42.2%	630,519
0251-0300	2,066	571,049	276.40	0.730	152.574	315,219	0.730	201.774	32.2%	416,866
0301-0400	1,973	680,602	344.96	0.730	202.619	399,769	0.730	251.819	24.3%	496,839
0401-0500	1,048	472,217	450.59	0.730	279.730	293,157	0.730	328.930	17.6%	344,718
0501-0600	546	299,951	549.36	0.730	351.833	192,101	0.730	401.033	14.0%	218,964
0601-0700	403	261,415	648.67	0.730	424.331	171,005	0.730	473.531	11.6%	190,833
0701-1000	613	510,643	833.02	0.730	558.907	342,610	0.730	608.107	8.8%	372,769
>1000	1,162	9,034,483	7,774.94	0.730	5,626.508	6,538,002	0.730	5675.708	0.9%	6,595,173
TOTAL	1,175,290	55,987,492	47.64	0.283		15,832,307	0.312			17,466,387

Benchmarks:

12 l/hr (starting flow of water meter) gives	25.92	m^3/Qtr
60 l/c/d with 7 people per subscriber gives	37.80	m^3/Qtr
120 l/c/d with 7 people per subscriber gives	75.60	m^3/Qtr
150 l/c/d with 7 people per subscriber gives	94.50	m^3/Qtr

Policy:

Flat rate only for lowest bracket until 20 m^3/Qtr

Until 20 m^3/Qtr shall pay min charge of 1.300 JD/Qtr

> 20 <= 40 m^3: according to consumption @ 0.070 JD/m^3

Above 40 m^3/Qtr the following progressive tariff will be applied

Consump/Qtr (m^3)	40	185	above
JD/m^3	0.080	0.730	0.730

increase compared to 1996 of J	1,634,080
% of increase	10

private tankers provide water @ 1.0 JD/m^3

Tariff 1996 JD/m^3	Consumption m^3/Qtr	New Tariff JD/m^3
0.450	41	0.084
0.550	71	0.219
0.700	101	0.353
0.700	125	0.461
0.700	150	0.573
0.730	251	0.730

Tarif97G.wk4 04/12/96 O.K.

Governorates/1995/ Wastewater

Bracket	Collection up to m³/Qtr	No. of Bills	Collection in Bracket (m³)	Collection in Bracket (%)	Average Coll. per Bill	Accumulated Collection	Accumulated Collection (%)	Tariff 1996 JD/m³	Revenue per Bracket (JD)	Revenue per Bracket (%)	Accumulated Revenue (JD)	Accumulated Revenue (%)	Average Bill JD/Qtr	Effective Price per m³
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(7a)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0000-0010	10	54,770	303,926	1.73%	5.55	303,926	1.73%	0.030	24,646	1.60%	24,646	1.60%	0.45	0.081
0011-0020	20	66,163	1,088,248	6.21%	16.45	1,392,174	7.94%	0.030	36,258	2.35%	60,904	3.94%	0.55	0.033
0021-0030	30	72,861	1,911,255	10.90%	26.23	3,303,429	18.85%	0.040	63,476	4.11%	124,380	8.05%	0.87	0.033
0031-0040	40	60,488	2,173,961	12.40%	35.94	5,477,390	31.25%	0.040	76,259	4.94%	200,639	12.99%	1.26	0.035
0041-0050	50	44,261	2,029,519	11.58%	45.85	7,506,909	42.83%	0.110	90,071	5.83%	290,710	18.82%	2.03	0.044
0051-0060	60	29,480	1,640,472	9.36%	55.65	9,147,381	52.19%	0.110	87,399	5.66%	378,109	24.48%	2.96	0.053
0061-0070	70	19,476	1,277,852	7.29%	65.61	10,425,233	59.48%	0.110	77,148	5.00%	455,257	29.48%	3.96	0.060
0071-0080	80	13,243	1,000,024	5.71%	75.51	11,425,257	65.19%	0.220	72,872	4.72%	528,129	34.20%	5.50	0.073
0081-0090	90	8,884	759,197	4.33%	85.46	12,184,454	69.52%	0.220	66,554	4.31%	594,683	38.51%	7.49	0.088
0091-0100	100	6,777	650,557	3.71%	95.99	12,835,011	73.23%	0.220	65,051	4.21%	659,734	42.72%	9.60	0.100
0101-0150	150	11,563	1,378,536	7.87%	119.22	14,213,547	81.10%	0.280	175,816	11.38%	835,550	54.10%	15.21	0.128
0151-0200	200	2,760	473,220	2.70%	171.46	14,686,767	83.80%	0.280	78,009	5.05%	913,559	59.16%	28.26	0.165
0201-0250	250	1,054	234,798	1.34%	222.77	14,921,565	85.14%	0.280	43,313	2.80%	956,872	61.96%	41.09	0.184
0251-0300	300	540	148,487	0.85%	274.98	15,070,052	85.98%	0.300	29,236	1.89%	986,108	63.85%	54.14	0.197
0301-0400	400	533	183,216	1.05%	343.74	15,253,268	87.03%	0.300	38,023	2.46%	1,024,131	66.32%	71.34	0.208
0401-0500	500	291	130,742	0.75%	449.29	15,384,010	87.77%	0.300	28,437	1.84%	1,052,568	68.16%	97.72	0.218
0501-0600	600	155	84,659	0.48%	546.19	15,468,669	88.26%	0.300	18,902	1.22%	1,071,470	69.38%	121.95	0.223
0601-0700	700	95	61,356	0.35%	645.85	15,530,025	88.61%	0.300	13,951	0.90%	1,085,421	70.28%	146.85	0.227
0701-1000	1000	165	135,351	0.77%	820.31	15,665,376	89.38%	0.300	31,428	2.04%	1,116,849	72.32%	190.47	0.232
>1000	10000	329	1,861,330	10.62%	5,657.54	17,526,706	100.00%	0.300	427,487	27.68%	1,544,336	100.00%	1,299.35	0.230
TOTAL		393,988	17,526,706	100.00%	44.50				1,544,336	100.00%			3.92	0.088

Operational Expenses 21,051,873 1.201 JD/m³ (14)=(13)/(6

Tarif97G.wk4 04/12/96 O.K.

Governorates/Proposed Tariff Restructuring/ 97/ Wastewater

Bracket	No. of Bills	Consumption in Bracket (m³)	Average Cons. per Bill m³/Qtr	Tariff 1996 JD/m³	Average Bill 1996 JD/Qtr	Expected Revenues 1996	Tariff 1997 JD/m³	Average Bill JD/Qtr	Change to 1996 Tariff %	Revenue per Bracket (JD)
(1)	(3)	(4)	(6)	(8)	(8a)	(8b)	(15)	(16)	(16a)	(17)
0000-0010	54,770	303,926	5.55	0.030	0.600	32,862		0.600	0.0%	32,862
0011-0020	66,163	1,088,248	16.45	0.030	0.600	39,698		0.600	0.0%	39,698
0021-0030	72,861	1,911,255	26.23	0.040	0.849	61,878	0.030	0.787	-7.3%	57,338
0031-0040	60,488	2,173,961	35.94	0.040	1.238	74,861	0.030	1.078	-12.9%	65,219
0041-0050	44,261	2,029,519	45.85	0.110	2.044	90,464	0.042	1.912	-6.4%	84,645
0051-0060	29,480	1,640,472	55.65	0.110	3.121	92,012	0.061	3.411	9.3%	100,551
0061-0070	19,476	1,277,852	65.61	0.110	4.217	82,136	0.081	5.329	26.4%	103,791
0071-0080	13,243	1,000,024	75.51	0.220	5.913	78,305	0.101	7.629	29.0%	101,029
0081-0090	8,884	759,197	85.46	0.220	8.100	71,965	0.121	10.333	27.6%	91,797
0091-0100	6,777	650,557	95.99	0.220	10.419	70,609	0.142	13.630	30.8%	92,372
0101-0150	11,563	1,378,536	119.22	0.280	16.681	192,888	0.188	22.466	34.7%	259,770
0151-0200	2,760	473,220	171.46	0.280	31.308	86,410	0.300	51.437	64.3%	141,966
0201-0250	1,054	234,798	222.77	0.280	45.675	48,142	0.300	66.831	46.3%	70,439
0251-0300	540	148,487	274.98	0.300	60.793	32,828	0.300	82.493	35.7%	44,546
0301-0400	533	183,216	343.74	0.300	81.423	43,399	0.300	103.123	26.7%	54,965
0401-0500	291	130,742	449.29	0.300	113.086	32,908	0.300	134.786	19.2%	39,223
0501-0600	155	84,659	546.19	0.300	142.156	22,034	0.300	163.856	15.3%	25,398
0601-0700	95	61,356	645.85	0.300	172.056	16,345	0.300	193.756	12.6%	18,407
0701-1000	165	135,351	820.31	0.300	224.393	37,025	0.300	246.093	9.7%	40,605
>1000	329	1,861,330	5,657.54	0.300	1,675.561	551,260	0.300	1697.261	1.3%	558,399
TOTAL	393,888	17,526,706	44.50	0.100		1,758,027	0.115			2,023,020

increase compared to 1996 of J	264,993
% of increase	15

Tariff 1996 JD/m³	Consumption m³/Qtr	New Tariff JD/m³
0.110	41	0.032
0.220	71	0.092
0.280	101	0.152
0.280	125	0.200
0.280	150	0.250
0.300	251	0.300

Policy:

Flat rate only for lowest bracket until 20 m³/Qtr

Until 20 m³/Qtr shall pay min charge of 0.600 JD/Qtr

> 20 <= 40 m³: according to consumption @ 0.030 JD/m³

Above 40 m³/Qtr the following progressive tariff will be applied

Collection/Qtr (m³)	40	165	above
JD/m³	0.030	0.280	0.300

Tarif97G.wk4 04/12/96 O.K.

Attachment 2 ANSWERS TO PRE-REQUISITES

4.

According to Minutes concerning items to be realized before the Japanese would further consider the expansion scheme presented herein are the answers to the questions pased in said items.

1. **Project between Adasiya and Pump Station No. 1 of the Zai System.**

- **Introduction**

  This project is presently "on hold" awaiting the results of the modeling of the entire water schemes in the valley. This is dependent on the various quantities of water which will be made available as a result of the Peace Treaty. A current alternative to the pipeline, for example, is conveyance of the water from the North via existing King Abdullah Canal. In addition, the investment, which will be provided by loans will affect the price of water supply and imply high water tariffs. Final decsision, however, is not made and is not expected to be made before the end of 1997.

- **Process with financial organization**

  Various donors have indicated interest in financing such project. This is indicated in the "Notes for the Record" at Frankfurt, Germany on November 20-22, 1996 where it is noted that the Federal Republic of Germany (FRG), European Investment Bank, (EIB), and France have shown interest.

- **Possibility of Finance**

  The possibility is based on parallel or co-financing basis between the donors. Such interest was shown during meetings alongside the Amman Middle East North Africa (MENA) Summit in 1995 when His Excellency, the Ambassador of Japan, was present.

- **Time when financial arrangement is confirmed**

  This will be requested by the Jordanian Government when the issues in the "Introduction", above are resolved.

- **Time when construction is completed**

  The project will be completed within three years of decision stipulated in the "Introduction" above.

- **Bottlenecks**

  The bottleneck is in arising to the decision for such project.

2. The Project between Pumping Station No. 5 and Dabouq Reservoir

- **Introduction**

This project consists in total, expansion of the intake station at Deir Alla to 90 mcm/yr, a section of pipe of 660 m in length, expansion of Pump Station No. 5 to 90 mcm/yr, and a parallel pipeline dia. 1200 mm and 17 km in length.

Process with financial organizations MBZ of Germany, have indicated interest in financing these components. This was realized and recorded in the Minutes of Meeting between the The German-Jordanian (intergovernmental) consultation of Novebmer,1996. The finance will be made under German Regional Fund (DM 140 Million/yr) which was previously available to Israel alone and now is accessible to Jordan, Palestinian National Authority and Israel.

- **Possibility of Finance**

This is clarified above where DM 15 Million allocated to Adasiya-Deir Alla was re-prioritized to this Project along with an additional DM 40 Million for 1997 will be more than sufficient for this project.

- **Time when financial arrangement is confirmed**

This will be confirmed in the German-Jordanian Intergovernmental agreement in the first quarter of 1997.

- **Time when construction is completed**

It is expected that construction will be completed by the end of 1999.

- **Bottlenecks**

Clarification of the availability of 50 mcm/yr (as recorded in the minutes) and JICA's Scheme and involvement in the expansion.

3. The usable water as a result of the Peace Treaty between Jordan and Israel is properly allocated between domestic and agriculture

Discussion process on water allocation in general is the decision of His Excellency the Minister of Water and Irrigation. Presently, a restructuring plan of the organization of the water structure will require the establishment of a "Water Council" whom allocation recommendations will be made. This restructuring is expected to be designed and accepted by the Government by early 1997. Implementation will then commence gradually starting immediately with the establishment of the "Water Council". Specifically, water allocation for domestic purposes from the Jordan Valley is governed by the maximum available capacites for water transfer and coveyance (such as Deir Alla Scheme).

- **Draft Allocation Plan**

  Allocated is a table showing the entire Kingdom's Water Balance forecast with deficits shown for the respective forecast years. This balance is the only schedule approved by the Ministry and has been presented officially by the Government to institutions such as the World Bank.

- **Time when allocation is concluded**

  The balance table shows the forecast year allocations.

4. **The Adasiya diversion/storage dam**

- **Process with financial organizations**

  The project is totally financed by the budget of the Government of Jordan.

- **Bottlenecks issues**

  Finalization of design with Israel. However, preliminary engineering design has been concluded.

- **Possibility of finance**

  Local budget for the Jordan Valley Authority. Estimated budget is JD 15 Million.

- **Time when financial arrangement is confirmed**

  Upon issuance of the National Budget for 1997.

- **Time when construction is completed**

  Preliminary engineering design is completed. Final redesign is ongoing, estimated to be completed by February 1997. Contractors have been already prequalified. Provided no complications arises from Israel, the contract will be tendered in March 1997, awarded by May 1997 and completed in the first quarter of 1999.

DRAFT

Supply & Demand of Water in Jordan (1994 - 2020)

(All Water Figures are in MCM/YR)

Year	1994	2000	2005	2010	2015	2020
Population Growth Rate	3.60	3.40	3.10	2.90	2.70	2.50
Total Population in Millions	4.14	5.11	6.03	7.03	8.11	9.27
Supply						
Groundwater (Safe Yields)	430	370	330	290	277	277
Potential Surface Water	235	195	238	238	238	238
Wastewater Reuse	54	87	114	141	170	200
Yarmouk River	120	185	235	235	235	235
Lower Jordan & the 50 MCM	0	80	80	80	80	80
Expected Disi Extraction	70	125	130	130	130	130
Brackish Groundwater	0	5	10	20	30	40
Total Water Production (MCM)	909	1,047	1,137	1,134	1,160	1,200
Demand						
Municipal	256	315	355	428	511	603
Industrial	25	78	96	119	128	142
Agricultural						
Upland Groundwater	255	195	155	115	100	100
Upland Surface Water	9	9	9	9	9	9
Jordan Valley Groundwater	58	446	556	556	556	556
Jordan Valley Surface Water	228					
Waste Water Reuse	48					
Mid Highland	70	70	70	70	70	70
Total Water Demand (MCM)	949	1,113	1,241	1,297	1,374	1,480
Water Deficit (MCM)	(40)	(66)	(104)	(163)	(214)	(280)
Deficit Alleviation from Desalination, Deep Aquifers & Regional Options	0	66	104	163	214	280
Net Water Balance (MCM)	(40)	0	0	0	0	0

N. B. *These figures are subject to the implementation of the Groundwater Reduction Program. This implementation program is contingent on the cooperation of the Ministries of the Interior, Justice, Finance, Agriculture and Planning.*

NON-PAPER

Negotiation Scenarios for the 50 MCM Additional Water Stipulated in Annex II

Annex II of the Peace Treaty with Israel and Jordan deals with water-related matters. The Annex stipulates among other matters, that Jordan and Israel will cooperate to provide Jordan "additional" 50 MCM/YR of drinkable quality and that such proposal for the source, once agreed on the working level, will be presented to the respective governments. This presentation was supposed to be made within one year of the treaty's effective date. It is now more than two years from the treaty and the issue is not resolved.

Throughout the years, many meetings were held on the issue and some meetings included individuals who were involved and who were major players in the development of the Annex II. It is only recently, however, that a proposal of serious nature is under deliberation.

The latest proposal is integrated in the sense that it simultanesously resolves several issues required from Israel according to the Annex. These deal primarily with the "clean up" of the Jordan River in which Israel dumps the wastewater of the population of Tiberias and Bisan as well as saline springs intercepted from flowing into Tiberias through groundwater wells from which the saline water is abstracted and conveyed to the River via an open channel.

The Israeli's overall scheme includes the construction of wastewater treatment plants at Tiberias and Bisan, with treated wastewater to be used for agriculture instead of water from Tiberias. The project also includes desalination of the saline waters from which 20-30 MCM of desalinated water are expected. The plant is proposed to be constructed on the Jordanian side along with ensuing brine and desalinated conveyance requirements. The provision for additional benefits includes a proposal to make available quantities of water by convincing Israel fish farmers to follow the "covered" farming technique and utilize more brackish water. All in all, the project is valued at around $165 million and Israel approached the German government for finance under "Regional Fund" on soft term basis (0.75%, 10+30years).

Jordan's position has beeen that it is only prepared to bear the direct conveyance costs to any water made available. Capital cost, also not to be borne by Jordan (as part of its position), may be carried by donors and may be accepted to be borne by Israel (not confirmed) since it is a one-shot outlay. Operational and Maintenance costs, however, are questionable. It is unlikely that Israel will accept to repeatedly pay O&M costs which such costs, along with conveyance of brined and other conveyances, from plant to source (destined as Amman) will make it prohibitive for Jordan to accept. Even at no charges for O&M, cost of related conveyance and facilities alone may make a scheme involving the provision of high quality drinkable water in the Valley unfeasible for Jordan. In that case, Jordan may request that Israel keeps the desalinated water of

50 MCM/YR (if that quantity is achieved solely from desalination) and that Jordan is given instead lower quality Tiberias water for which Jordan has the conveyance and treatment capabilities (once expansion scheme is completed).

Given the large number of variable and interactive components, it appears that various scenarios are available, the most practical and economical of which is to augment supplies fro domestic supply from the Jordan Valley from the same sources utilized at present, namely Yarmoik/ Tiberias with a water quality which is familiar.

Attachment 3 WAJ's AUDIT REPORT 1995

WATER AUTHORITY OF JORDAN

AUTONOMOUS PUBLIC DEPARTMENT

AMMAN - THE HASHEMITE KINGDOM OF JORDAN

FINANCIAL STATEMENTS
AND AUDITORS ' REPORT

FOR THE YEAR ENDED DECEMBER 31, 1995

TALAL ABU - GHAZALEH & CO.

WATER AUTHORITY OF JORDAN
AUTONOMOUS PUBLIC DEPARTMENT

AMMAN - THE HASHEMITE KINGDOM OF JORDAN

INDEX

	PAGE
Auditors' report	1
	EXHIBIT
Balance sheet as of December 31, 1995	A
Statement of revenues and expenses for the year ended December 31, 1995	B
Statement of cash flows for the year ended December 31, 1995	C
	No.
Notes to the financial statements	12

طلال أبوغزاله وشركاه
Talal Abu-Ghazaleh & Co.
Certified Public Accountants
محاسبون قانونيون

AUDITORS' REPORT

105180214

THE CHAIRMAN AND MEMBERS OF THE BOARD OF DIRECTORS
WATER AUTHORITY OF JORDAN
AMMAN - THE HASHEMITE KINGDOM OF JORDAN

We have audited the balance sheet of the Water Authority Of Jordan (Autonomous Public Department) as of December 31, 1995 and the related statements of revenues and expenses, and cash flows for the year then ended. These financial statements are the responsibility of the Authority's management. Our responsibility is to express an opinion on these financial statements based on our audit.

Except as explained in the following paragraph we conducted our audit in accordance with the International Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatements. Our audit included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audit also included assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

- We have not received any confirmations for Local and International loans and the related overdue payments and accrued interest amounting to JD 333,041,252 from all credit loans amounting to JD 461,575,440.

In our opinion, except for the effects of such adjustments, if any, as might have been determined to be necessary had we been able to confirm local and international loans, the accompanying financial statements present fairly the financial position of the Water Authority Of Jordan as of December 31, 1995 and the related statement of revenues and expenses, and cash flows for the year then ended in accordance with International Accounting Standards and the accounting policies stated in Note No.2.

Talal Abu - Ghazaleh & Co
TALAL ABU - GHAZALEH & CO.

Amman July 2, 1996

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ص . ب : ٩٢١١٠٠ عمان ١١١٩٢ الأردن
هاتف ٦٦٩-٦٠٣ (٩٦٢-٦) فاكس ٦٩٦-٢٨٤ (٩٦٢-٦)

EXHIBIT A

WATER AUTHORITY OF JORDAN
AUTONOMOUS PUBLIC DEPARTMENT
AMMAN - THE HASHEMITE KINGDOM OF JORDAN
BALANCE SHEET AS OF DECEMBER 31,1995
(Amounts are expressed in Jordanian Dinars)

ASSETS	1995	1994
FIXED ASSETS	J.D	J.D
Fixed assets at cost	627,763,126	569,291,298
Accumulated depreciation	(187,474,367)	(158,020,858)
Net book value - Note 3	440,288,759	411,270,440
Projects in progress - Note 4	40,750,675	54,205,459
CURRENT ASSETS		
Spare parts and materials	13,024,395	11,459,419
Accounts receivable - Note 5	15,116,034	16,757,582
Other debit balances - Note 6	2,923,298	2,157,188
Cash	562,997	798,357
Total current assets	31,626,724	31,172,546
TOTAL ASSETS.	512,666,158	496,648,445

CAPITAL AND LIABILITIES	1995	1994
EQUITY	J.D	J.D
Capital - Note 7	332,721,904	314,444,110
Accumulated deficit - Exhibit B	(338,805,763)	(280,025,492)
Net capital	(6,083,859)	34,418,618
Provision for contingencies	1,386,417	1,462,548
LONG TERM LOANS		
International loans (including J.D 72,299,963 Foreign Currencies Exchange) - Note 8	122,268,021	127,342,326
Local loans - Note 9	108,427,686	76,879,347
Bonds and debentures	21,325,000	21,325,000
Total long term loans	252,020,707	225,546,673
CURRENT LIABILITIES		
Accounts payable	16,349,957	13,887,823
Retentions from contractors	2,478,087	2,488,070
Deposits	29,312,926	26,742,896
Pastdue installments and accrued interest on loans (including J.D 39,909,226 Foreign Exchange loss)-Note 10	209,554,733	182,168,335
Pension fund	88,576	88,576
Payable to banks	7,558,614	9,844,906
Total current liabilities	265,342,893	235,220,606
TOTAL CAPITAL AND LIABILITIES	512,666,158	496,648,445

THE ACCOMPANYING NOTES CONSTITUTE AN INTEGRAL PART OF THIS STATEMENT

WATER AUTHORITY OF JORDAN

AUTONOMOUS PUBLIC DEPARTMENT — EXHIBIT-B

AMMAN - THE HASHEMITE KINGDOM OF JORDAN

STATEMENT OF REVENUES AND EXPENSES FOR THE YEAR ENDED DECEMBER 31, 1995

(Amounts are expressed in Jordanian Dinars)

	1995	1994
REVENUES	J.D	J.D
Water sales - Note 11	25,197,198	24,269,095
Water sales by tankers	347,280	332,752
Sewerage and drainage fees	4,876,173	4,516,323
Sewerage tax	5,123,459	5,409,723
Subscription and installation fees	3,302,777	3,616,653
Meters maintenance fees	645,533	622,442
Bank interest	15,329	48,431
Other revenues	5,871	179,645
Miscellaneous	1,109,652	1,095,264
Total Revenues	40,623,272	40,090,328
Less: Expenses		
Salaries & wages	16,348,330	16,099,444
Operating & maintenance expenses	29,764,829	25,187,607
General & administrative expenses	723,136	632,735
Depreciation	29,453,509	27,585,984
Interest on loans	16,187,979	15,782,498
Total expenses	92,477,783	85,288,268
Excess of expenses over revenues	(51,854,511)	(45,197,940)
Foreign exchange (loss) gain	(6,925,760)	(4,129,084)
Deficit for the year	(58,780,271)	(49,327,024)
Prior year accumulated deficit balance	(280,025,492)	(230,698,468)
Accumulated Deficit - Exhibit A	(338,805,763)	(280,025,492)

THE ACCOMPANYING NOTES CONSTITUTE AN INTEGRAL PART OF THIS STATEMENT

WATER AUTHORITY OF JORDAN
AUTONOMOUS PUBLIC DEPARTMENT
AMMAN - THE HASHEMITE KINGDOM OF JORDAN

NOTES TO THE FINANCIAL STATEMENTS
(Amounts are expressed in Jordanian Dinars)

1. ESTABLISHMENT AND ACTIVITIES

The Water Authority was established in compliance with Temporary Law Number (34) of 1983 by merging the following water supply entities :

- Water and Sewerage Authority of Greater Amman Area.
- Establishment of Drinking Water.
- Water Divisions of Natural Resources Authority.
- Water Divisions at Municipalities.
- Water Division at Jordan Valley Authority .

The Water Authority has then become one of the Ministry of Water and Irrigation departments. The scope of activities of the Water Authority concentrates on water, sewerage and other related activities in the Hashemite Kingdom of Jordan.

2. SIGNIFICANT ACCOUNTING POLICIES

a) Revenues and expenses are recorded on accrual basis.

b) As the Government of the Hashemite Kingdom of Jordan is the guarantor of all loans and banking facilities granted to the authority, the going concern concept applies.

c) The Authority adopts the straight line method in depreciating its assets using the following rates :

Wells	8 %
Water reservoirs	6 %
Water distribution system	5 %
Buildings	4 %
Machinery and equipment	7 %
Office equipment	12%
Furniture	10%
Vehicles and Tankers	15%
Radio sets and water meters	12%
Drying docks	3 %
Computers	12%
Natural stabilization ponds	4 %

c) Amounts transferred from projects in progress to fixed assets during the year are depreciated in the following year as shown in note No.2/b.

d) Spare parts and materials are valued at cost.

e) Cost of materials and supplies dispatched from warehouses are allocated to the water distribution system project and maintenance expenses, prorata to their respective direct cost.

f) Foreign loans are translated to Jordanian Dinars using the Central Bank prevailing exchange rates at year end. Foreign exchange gains or losses are charged to the statement of revenues and expenses.

g) Indirect costs of projects in progress are charged to expenses for the year and are not capitalized.

h) Interest on loans financing projects in progress are capitalized.

3. FIXED ASSETS

A) This item consists of the following:

	1995	1994
	J.D	J.D
Lands Note 3/B	20,401,400	19,623,218
Buildings	13,386,160	10,411,426
Accumulated depreciation	(4,367,712)	(3,951,255)
Net book value	9,018,448	6,460,171
Wells	29,139,278	25,561,894
Accumulated depreciation	(14,524,820)	(12,441,622)
Net book value	14,614,458	13,120,272
Water distribution system	471,121,187	426,970,754
Accumulated depreciation	(131,168,234)	(109,821,721)
Net book value	339,952,953	317,149,033
Water reservoirs	7,225,363	7,225,363
Accumulated depreciation	(3,367,797)	(2,934,275)
Net book value	3,857,566	4,291,088
"Al-Azrak" project	14,750,406	14,750,406
Accumulated depreciation	(7,026,187)	(6,436,171)
Net book value	7,724,219	8,314,235
Furniture	989,455	969,253
Accumulated depreciation	(946,855)	(847,909)
Net book value	42,600	121,344

	1995 J.D	1994 J.D
Vehicles	6,172,729	5,677,991
Accumulated depreciation	(5,178,646)	(4,306,671)
Net book value	994,083	1,371,320
Power generators	2,657,152	2,608,413
Accumulated depreciation	(1,093,530)	(884,857)
Net book value	1,563,622	1,723,556
Pumps and motors	10,182,226	9,776,521
Accumulated depreciation	(4,341,743)	(3,364,091)
Net book value	5,840,483	6,412,430
Drilling machinery and equipment	5,934,436	5,079,077
Accumulated depreciation	(1,647,646)	(1,292,110)
Net book value	4,286,790	3,786,967
Irrigation and dams	6,515,144	5,215,951
Accumulated depreciation	(930,605)	(800,206)
Net book value	5,584,539	4,415,745
Meteorology stations	384,021	384,021
Accumulated depreciation	(264,990)	(238,108)
Net book value	119,031	145,913
Water meters	10,280,969	8,451,089
Accumulated depreciation	(2,336,285)	(1,746,385)
Net book value	7,944,684	6,704,704
Miscellaneous machinery & equipment	10,559,701	8,522,422
Accumulated depreciation	(4,793,930)	(4,192,630)
Net book value	5,765,771	4,329,792
Natural stabilization ponds	18,063,499	18,063,499
Accumulated depreciation	(5,485,387)	(4,762,847)
Net book value	12,578,112	13,300,652
Total Net Book Value Of Fixed Assets	440,288,759	411,270,440

B) The amount of JD 20,401,400 shown under Lands represent amounts paid by the authority for this asset. The said amount does not represent all Lands owned by the authority. Detailed records for those lands are maintained by the Expropriation Department at the authority.

4. WORK IN PROGRESS

The Water Authority Of Jordan has an obligation balance of JD 47,536,065 (as of December 31, 1995), pertaining to incompleted projects assigned to contractors.

5. ACCOUNTS RECEIVABLE

This item consists of the following:

	1995	1994
	J.D	J.D
Subscribers and tankers	12,936,242	13,397,057
Ministry of Planning	1,133,140	1,133,140
Ministry of Finance-sewerage tax	886,906	1,991,669
Miscellaneous	185,746	261,716
Total	15,142,034	16,783,582
Allowance for doubtful debts	(26,000)	(26,000)
Net Receivables	15,116,034	16,757,582

In compliance with article No.(16) of Temporary Law No.(34), the Water Authority receivables are considered public interest (Ameery Funds) and are collected in conformity with the ruling of the collection of The Ameery Funds law. Accordingly an allowance for doubtful debts is not required.

6. OTHER DEBIT BALANCES

This item consists of the following:

	1995	1994
	J.D	J.D
Advances to contractors	2,918,667	2,153,221
Imprest advances	4,631	3,967
Total	2,923,298	2,157,188

7. CAPITAL

This item consists of the following:

	1995	1994
	J.D	J.D
Balance at begining of the year	314,444,110	296,414,376
Add:		
Contributions of the government (Ministry of Planning) in water and sewerage projects	183,240	133,371
Contributions of the government (Ministry of Finance) in water and sewerage projects	14,265,724	15,539,346
Contributions of citizens for water and		

	1995 J.D	1994 J.D
sewerage installations	32,540	3,860
U.S AID Contributions	1,278,818	91,703
European Community Contributions	200,848	1,815,402
K.F.W grant	1,366,188	156,090
British Development Agency (Government of the United Kingdom)	749,732	289,962
Japan grant	200,704	-
Balance at end of the year	332,721,904	314,444,110

8. INTERNATIONAL LOANS

This item consists of the following:

	1995 J.D	1994 J.D
European Investment Bank / new 10572	5,449,200	5,173,200
European Investment Bank	1,338,364	1,446,246
European Investment Bank 106195	4,536,913	4,307,120
European Investment Bank	3,637,341	4,155,373
European Investment Bank 18003	1,367,250	-
European Investment Bank 17366	1,355,761	-
K.F.W. 8966129	2,824,352	3,237,965
K.F.W. 8265183	12,316,785	12,301,632
K.F.W. 9266180	939,621	384,439
K.F.W. 8966400	1,589,955	312,102
K.F.W. 9366295	84,522	-
International Bank For Reconstruction and Development 2213	3,699,100	4,577,040
International Bank For Reconstruction and Development 2425	6,212,500	7,897,500
International Bank For Reconstruction and Development 2483	7,100,000	8,775,000
International Bank For Reconstruction and Development 2694	17,735,800	20,463,300
U.S. AID 278/k/23	5,147,500	5,598,450
U.S. AID 278/k/26	4,277,431	4,401,856
U.S. AID 278/k/28	9,250,841	9,883,706
U.S. AID 278/30	4,082,500	4,387,500
U.S. AID 278/31	5,574,582	6,281,162
Saudi Fund For Development 5/82	1,476,205	2,043,784
Saudi Fund For Development 8/145	4,152,137	4,106,124
Saudi Fund For Development 4/81/1	2,491,234	2,463,627

6

	1995 J.D	1994 J.D
Arab Fund For Economic and Social Development - Aqaba swerages 47/79	593,007	817,639
Arab Fund For Economic and Social Development - rural areas 82/82	353,870	451,561
Islamic Bank For Development	2,427,673	2,836,972
British fund 4902/5	559,657	782,310
British fund 39307	767,603	837,384
International Development Association 385	3,550,000	1,754,298
International Development Association 780	1,537,718	3,978,000
Export and Import Bank of Koria	5,262,051	3,687,036
France Loan	576,548	-
Total	122,268,021	127,342,326

There are re-lending agreements between the Water Authority of Jordan and The Ministry of Planning related to these loans.

9. LOCAL LOANS

This item consists of the following:

	1995 J.D	1994 J.D
Advance from Ministry of Finance on Saudi fund loans	7,067,478	7,067,478
Social Security Corporation (20 million)	20,000,000	20,000,000
Social Security Corporation (8 million)	4,351,228	6,255,866
Social Security Corporation (10 million)	10,000,000	-
Planning Council/Ministry of Planning	-	100,000
Arab Bank (20 million)	20,000,000	20,000,000
Arab Bank (21,5 million) (16,5 million previous)	21,500,000	16,500,000
Arab Bank Leading Loan (15 million)	15,000,000	-
Arab Bank/Ministry of Finance (Treasury)	-	45,903
Amman Investment Bank (Bonds - Third issue)	-	408,100
Arab Finance Corporation (Bonds- Fourth issue)	2,009,000	3,002,000
Islâmic Bank	3,500,000	3,500,000
Islamic Bank (5 million)	4,999,980	-
Total	108,427,686	76,879,347

10. PASTDUE INSTALLMENTS AND ACCRUED INTEREST ON LOANS

This item consists of the following:

	1995	1994
	J.D	J.D
Pastdue installments	114,697,284	97,796,531
Accrued interest	94,857,449	84,371,804
Total	209,554,733	182,168,335

11. SALES OF WATER

Water supplied to consumers constitutes 42% of the waterdrawn from the wells during the year 1995. This means that the waste percentage was 58%.

12. CONTINGENT LIABILITIES

A) Contingent liabilities on the balance sheet date amounted to JD 133,214, all related to outstanding letters of credit.

B) According to the letter from the Authority lawyer, there are pending legal proceedings against the Authority from third parties with total claims amounting to JD 11,744,132. Also there are pending legal preceedings by the Authority against third parties with total claims amounting to JD 801,120.

Attachment 4 ANNUAL EXPENDITURES

ANNUAL EXPENDITURES

(Thousand Dinars)

1. REHABILITATION PORTION

Item		Cost	1996	1997	1998	1999	2000
Expansion of 33kv Transmission System		1,300			1,300		

2. EXPANSION PORTION

Item		Cost					
Expenses for procuring temporary sites outside treatment plar	11,000m3 for 3 years	55			55		
Work sites for conveyance pipelines	10,000m2 for 1 year	20			20		
Temporary roads for conveyance pipeline work	300m	10			10		
Supply and Laying of conveyance pipelines	660m	400			400		
Protection of conveyance pipelines	200m(No.1 - No.2PS)	50			50		
Installation of power and water supply for work	For temporary yard/ water treatment plant	10			10		
Fencing around water treatment plant	450m	11			11		
New sludge drying bed	80m x 80m	360			360		
Expenses for renewing dosing equipment		125			125		
Expenses for renewing monitoring and control equipment		230			230		
Total		1,271			1,271		

JICA