DATA BOOK 5

EXISTING WATER SUPPLY FACILITIES

Station Name : Mazraa PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	786,570	340,850	0	0	139,700	1,099,100	1,091,565	1,004,230	884,400	848,400	758,140	567,425	7,520,340
Well pump 1	673	586	0	0	81	668	733	739	711	742	640	745	6,318
2	676	238	0	0	74	662	730	742	719	744	714	573	5,872
3	675	610	0	0	130	671	733	741	720	744	690	745	6,459
4	674	299	0	0	78	663	732	742	720	774	714	712	6,108
5	674	292	0	0	70	663	734	743	713	744	714	695	6,042
6	674	194	0	0	66	663	739	743	720	744	714	712	5,963
7	674	514	0	0	116	663	740	743	720	744	714	469	6,097
8	674	213	0	0	70	663	740	742	720	744	714	469	5,749
9	674	194	0	0	70	664	743	742	720	744	714	466	5,731
10	674	194	0	0	70	663	739	743	720	744	714	466	5,727
11	663	194	0	0	65	663	742	743	720	730	700	466	5,686
12	674	194	0	0	70	663	742	743	720	744	715	466	5,731
13	674	194	0	0	63	663	741	742	720	744	714	466	5,721
14	674	187	0	0	50	663	738	742	721	743	714	466	5,698
15	674	425	0	0	100	663	729	742	721	743	714	468	5,979
16	674	201	0	0	96	675	734	741	715	742	715	330	5,623
17	655	194	0	0	88	666	733	741	712	735	714	499	5,737
18	671	218	0	0	94	676	730	741	710	735	713	499	5,787
19	0	0	0	0	1	498	734	738	713	649	625	500	4,458
20	333	193	0	0	0	538	689	679	687	737	700	443	4,989
21	739	188	0	0	0	555	725	737	703	737	645	469	5,498
22	740	199	0	0	34	580	737	722	707	736	106	469	5,090
23	720	208	0	0	0	650	733	740	717	743	714	0	5,225
24	740	199	0	0	0	557	734	738	710	724	709	469	5,580
Subtotal	15,363	6,120	0	0	1,383	15,344	17,604	17,709	17,459	17,710	16,300	12,062	136,858
Booster pump 1	0	0	0	0	70	629	732	741	700	739	673	440	4,724
2	199	0	0	0	70	212	185	63	604	739	682	421	3,175
3	323	89	0	0	70	383	300	45	625	736	681	423	3,675
4	525	143	0	0	0	459	680	727	330	32	2	113	2,933
5	576	187	0	0	66	645	699	687	139	4	5	0	3,002
6	0	0	0	0	68	653	661	363	92	11	2	25	1,875
7	417	195	0	0	73	197	0	0	0	0	0	0	882
8	0	0	0	0	0	0	0	0	0	0	0	0	0
9	738	609	0	0	744	687	742	732	719	746	718	747	7,264
10	731	689	0	0	744	684	733	728	714	738	714	747	7,222
Subtotal	3,557	1,993	0	0	1,897	4,979	4,632	4,086	3,723	3,725	3,477	2,914	34,553
Electricity (kwh)	445,100	218,600	0	0	155,400	572,600	561,850	506,700	455,925	455,200	420,200	342,600	4,174,175
Tr. (kwh)	445,100	218,600	0	0	155,300	560,000	550,800	503,400	453,000	455,200	420,200	342,600	3,899,300
Gen(kwh)	0	0	0	0	0	12,600	11,050	3,300	2,925	0	0	0	29,875
Generator (hr)	0	0	0	0	0	18	17	5	4	0	0	0	44
Fuel (ltr)	0	0	0	0	0	3,446	2,403	629	378	0	0	0	7,056
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Ben Arakter PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	739,817	177,511	0	0	0	522,132	919,904	936,226	897,738	853,891	767,100	367,252	6,297,571
Well pump 1	598	175	0	0	0	477	697	740	717	728	715	495	5,334
2	659	185	0	0	0	464	715	740	718	725	715	478	5,415
3	595	174	0	0	0	467	683	739	718	725	714	497	5,292
4	577	161	0	0	0	419	692	739	713	723	708	462	5,195
5	632	142	0	0	0	437	712	738	718	725	705	459	5,268
6	565	133	0	0	0	404	688	739	711	728	664	382	5,013
7	534	89	0	0	0	219	629	734	712	697	680	371	4,665
8	523	95	0	0	0	271	645	726	712	694	654	361	4,581
9	458	70	0	0	0	209	584	723	712	683	603	331	4,373
10	442	59	0	0	0	168	442	475	540	486	338	34	2,984
11	434	52	0	0	0	0	513	718	706	577	452	231	3,683
12	409	52	0	0	0	121	514	698	691	569	434	199	3,687
13	0	0	0	0	0	0	291	565	631	593	566	236	2,882
14	661	176	0	0	0	516	722	731	719	729	703	367	5,424
15	661	177	0	0	0	511	722	549	720	730	585	361	5,025
16	529	176	0	0	0	475	703	685	650	685	636	170	4,709
17	623	168	0	0	0	504	718	641	703	698	654	407	5,116
18	669	176	0	0	0	516	729	729	719	728	704	486	5,447
19	667	176	0	0	0	516	700	621	718	733	708	491	5,329
Subtotal	10,236	2,435	0	0	0	6,494	12,033	12,962	13,228	12,956	11,920	6,912	89,316
Booster pump 1	625	155	0	0	0	500	715	723	572	662	572	432	4,956
2	643	164	0	0	0	511	715	732	683	719	704	470	5,343
3	624	164	0	0	0	487	714	732	556	631	638	348	4,853
4	594	190	0	0	0	459	725	733	704	732	655	277	5,669
5	662	193	0	0	0	511	719	727	715	675	666	393	5,261
6	645	179	0	0	0	503	715	502	413	575	622	282	4,536
7									328	133	166	139	766
8												131	131
Subtotal	3,802	1,045	0	0	0	2,971	4,303	4,129	3,771	4,127	4,003	2,575	30,716
Electricity (kwh)	318,252	80,868	0	0	0	234,505	441,190	371,002	361,817	376,585	359,397	226,368	2,771,984
Tr. (kwh)	2,070	1,380	0	0	0	228,665	438,860	367,092	360,437	376,155	356,177	225,218	2,355,854
Gen(kwh)	316,182	81,848	0	0	0	6,440	2,300	3,910	1,380	230	3,220	1,150	416,660
Generator (hr)	9	6	0	0	0	28	30	17	6	1	14	5	99
Fuel (ltr)	585	390	0	0	0	2,100	756	1,425	450	75	1,050	225	7,056
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Kabeun PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Water (m3)	216,780	63,600	0	0	0	154,560	215,340	216,000	23,040	219,300	208,740	222,180	1,541,230
Well pump 1	723	212	0	0	0	516	709	697	700	732	696	743	5,728
2	723	212	0	0	0	515	729	730	716	736	696	744	5,801
3	723	212	0	0	0	515	728	730	716	736	696	743	5,799
4	723	212	0	0	0	515	728	730	716	735	695	729	5,781
5	723	212	0	0	0	515	695	732	716	136	696	744	5,169
Subtotal	3,613	3,060	0	0	0	2,576	3,589	3,619	3,564	3,155	3,479	3,703	28,258
Boost Water(m3)	163,200	184,200	195,600	191,200	204600	192,200	201,600	173,600	163,800	157,900	159,600	206,800	2,199,300
Booster pump 1	415	463	495	484	510	502	501	437	414	397	400	516	5,534
2	401	458	483	472	513	484	507	368	403	390	398	518	5,396
Subtotal	816	921	978	956	1,023	986	1,008	805	818	787	798	1,034	10,930
Electricity (kwh)	184,042	132,115	73,350	71,700	76,725	161,534	197,626	187,976	182,526	183,295	178,136	203,452	1,832,477
Tr. (kwh)	184,042	132,115	73,350	71,700	76,725	161,534	197,626	187,976	182,526	183,295	178,136	203,452	1,832,477
Gen(kwh)	0	0	0	0	0	0	0	0	0	0	0	0	0
Generator (hr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel (ltr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Kadam Store PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	43,300	45,400	0	0	0	120,300	165,500	206,600	206,500	195,300	207,315	174,823	1,365,138
Well pump 1	504	246	0	0	0	458	537	730	723	718	553	509	4,978
2	83	50	0	0	0	417	517	654	674	544	0	1	2,939
3	448	312	0	0	0	552	601	732	730	705	0	0	4,080
4											552	503	1,055
5											557	511	1,068
6											376	0	376
7											552	519	1,071
8											553	503	1,056
9											554	521	1,075
10											369	0	369
Subtotal	1,035	608	0	0	0	1,427	1,655	2,116	2,127	1,967	4,066	3,066	18,067
Booster pump 1											256	130	386
2											148	58	206
3											266	168	434
4											168	77	245
Subtotal											838	433	1,271
Electricity (kwh)	92,310	31,780	0	0	0	84,210	132,400	165,280	165,200	156,320	87,291	76,031	995,822
Tr. (kwh)	92,310	31,780	0	0	0	84,210	132,400	165,280	165,200	156,320	57,483	76,031	906,014
Gen(kwh)	0	0	0	0	0	0	0	0	0	0	29,808	0	29,808
Generator (hr)	0	0	0	0	0	0	0	0	0	0	69	0	69
Fuel (ltr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Ontowyan PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	413,196	254,458	31,334	24,273	116,774	612,445	596,301			337,493	315,950		2,702,132
Well pump 1	704	331	37	22	36	720	744			744	720	503	4,561
2	696	334	35	23	35	720	744			744	720	689	4,664
3	698	307	38	19	35	720	744			744	720	608	4,633
4	701	269	32	21	38	720	744			744	720	451	4,450
5	696	243	26	24	35	720	744			744	720	601	4,553
6	706	228	22	18	34	720	744			744	720	561	4,497
7	0	0	0	0	0	0	0			0	0	0	0
8	651	238	31	23	37	720	744			744	720	561	4,469
9	695	239	35	17	39	720	744			744	720	568	4,521
10	681	233	29	22	33	720	744			744	720	561	4,487
11	696	322	38	25	34	720	744			744	720	608	4,652
12	700	283	32	27	32	720	744			744	720	667	4,669
13	689	281	22	16	38	720	744			744	720	608	4,574
14	704	76	24	20	36	720	744			744	710	56	3,834
Subtotal	9,017	3,384	401	278	462	9,360	9,672			9,672	9,350	6,904	58,500
Booster pump 1	0	0	0	0	61	375	438			0	0	148	1,022
2	363	233	0	0	58	329	744			679	575	417	3,448
3	245	136	0	0	59	329	245			296	215	78	1,653
4	138	46	0	0	54	369	387			0	209	78	1,281
5	568	248	0	0	60	387	26			0	0	0	1,337
6		55	125	105	136	442	103			72	40	67	1,145
7	136	114	85	80	90	99	69			291	299	136	1,399
Subtotal	1,448	832	205	185	518	2,430	2,062			1,338	1,338	924	11,280
Electricity (kwh)	201,762	103,235	29,961	20,979	46,182	256,600	264,478			235,395	210,073	173,309	1,543,988
Tr. (kwh)	201,762	103,235	29,961	20,691	45,894	256,030	264,478			235,395	210,073	173,309	1,540,828
Gen(kwh)	0	0	0	288	288	576	0			0	0	0	1,152
Generator (hr)	0	0	0	2	2	4	0			2	0	2	12
Fuel (ltr)	0	0	0	140	140	280	0			140	0	140	840
Chloride (kg)	0	0	0	0	0	0	0			0	0	0	1

Station Name : Johor PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	805,275	393,055	0	0	0	669,250	758,500	750,300	643,000	618,407	611,360	610,700	5,905,217
Well pump 1	414	165	0	0	0	376	737	737	724	700	710	743	5,283
2	979	262	0	0	0	489	710	734	711	683	690	725	5,983
3	667	335	0	0	0	490	709	733	721	699	698	741	5,794
4	654	336	0	0	0	623	721	724	724	732	718	746	5,955
5	550	232	0	0	0	601	730	736	635	706	716	734	5,640
6	578	273	0	0	0	561	726	729	655	704	709	723	5,658
7	581	274	0	0	0	531	717	728	713	701	713	745	5,703
8	565	223	0	0	0	563	723	736	646	699	695	722	5,563
9	614	265	0	0	0	611	725	738	713	691	693	498	5,546
10	628	330	0	0	0	622	712	738	648	712	712	747	5,849
11	547	179	0	0	0	364	651	739		713	718	747	4,658
12	687	336	0	0	0	658	704	738		715	729	747	5,315
13	596	302	0	0	0	631	615	735		700	709	745	5,025
14	682	345	0	0	0	599	689	736		713	733	747	5,244
Subtotal	8,742	3,867	0	0	0	7,719	9,850	10,276	6,884	9,839	9,925	10,111	77,213
Booster pump 1	559	249	0	0	0	318	573	593	583	665	664	611	4,808
2	607	212	0	0	0	312	397	114	157	457	467	529	3,252
3	588	333	0	0	0	535	678	695	685	656	666	699	5,535
4	486	261	0	0	0	623	706	722	343	365	384	375	4,285
5	330	266	0	0	0	601	576	342	4	692	695	269	3,769
Subtotal	2,570	1,306	0	0	0	2,589	2,928	2,364	1,770	2,855	2,876	2,483	21,641
Electricity (kwh)	365,016	192,800	0	0	0	369,214	412,638	381,128	258,243	379,588	373,230	372,108	3,107,365
Tr. (kwh)	363,000	190,500	0	0	0	356,700	401,400	382,200	254,905	366,600	371,300	370,500	3,051,105
Gen(kwh)	2,036	2,300	0	0	0	13,014	11,238	1,928	3,338	18,988	1,930	1,608	56,390
Generator (hr)	7	9	0	0	0	54	45	8	10	49	8	8	198
Fuel (ltr)	491	395	0	0	0	3,286	2,458	515	590	2,949	515	195	11,398
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : University PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	95,800	0	0	0	0	0	75,035	451,093	434,430	492,419	541,738	295,765	2,385,780
Well pump 1	127	0	0	0	0	0	95	422	423	454	722	363	2,606
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	116	612	562	617	366	98	2,371
4	0	0	0	0	0	0	76	419	443	505	733	367	2,543
5	126	0	0	0	0	0	45	402	497	503	717	366	2,656
6	127	0	0	0	0	0	51	0	568	306	723	366	2,291
7	0	0	0	0	0	0	0	455	0	0	0	0	455
8	127	0	0	0	0	0	118	708	656	706	698	362	3,369
9	126	0	0	0	0	0	0	0	0	0	0	0	126
10	126	0	0	0	0	0	0	0	0	0	0	0	126
11	5	0	0	0	0	0	76	579	578	686	723	367	3,014
12	126	0	0	0	0	0	47	397	286	626	393	256	2,125
Subtotal	800	0	0	0	0	0	624	4,084	4,007	4,457	5,075	2,545	21,632
Booster pump 1	128	0	0	0	0	0	107	574	573	669	723	326	3,115
2	126	0	0	0	0	0	83	595	572	640	722	371	3,109
3	128	0	0	0	0	0	70	597	588	637	722	359	3,101
4	128	0	0	0	0	0	94	589	575	665	722	370	3,133
5	124	0	0	0	0	0	107	581	579	614	723	377	3,105
Subtotal	640	0	0	0	0	0	459	2,927	2,888	3,225	3,612	1,843	15,594
Electricity (kwh)	55,225	0	0	0	0	0	38,889	248,633	246,697	276,353	309,672	164,661	1,339,733
Tr. (kwh)	55,225	0	0	0	0	0	38,889	248,633	246,697	275,103	309,672	164,661	1,337,208
Gen(kwh)	0	0	0	0	0	0	0	0	0	1,250	420	840	2,525
Generator (hr)	0	0	0	0	0	0	0	0	0	3	1	2	6
Fuel (ltr)	0	0	0	0	0	0	0	0	0	255	85	375	715
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Kudam Railway PWC

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	549,300	249,660	0	0	0	0	7,100	686,700	635,800	611,300	549,040	353,090	3,653,990
Well pump 1	681	330	0	0	0	0	737	741	738	746	721	506	5,184
2	677	321	0	0	0	0	737	741	736	747	721	506	5,186
3	681	320	0	0	0	0	734	742	738	745	721	506	5,187
4	680	320	0	0	0	0	736	741	739	746	722	506	5,190
5	471	196	0	0	0	0	666	604	613	667	630	304	4,147
6	518	200	0	0	0	0	684	621	614	699	667	294	4,293
7	691	309	0	0	0	0	752	713	615	736	726	502	5,044
8	479	199	0	0	0	0	670	609	610	677	635	304	4,183
9	555	238	0	0	0	0	750	729	716	745	718	496	4,947
10	454	186	0	0	0	0	661	603	660	745	720	498	4,455
Subtotal	5,883	2,649	0	0	0	0	7,127	6,838	6,733	7,263	6,974	4,418	47,832
Booster pump 1	586	291	0	0	0	0	693	634	632	546	499	585	4,467
2	302	197	0	0	0	0	535	346	342	133	132	54	2,142
3	619	291	0	0	0	0	702	696	688	729	698	498	4,901
4	12	2	0	0	0	0	142	213	210	297	279	178	1,335
5	8	0	0	0	0	0	19	2	0	0	0	0	29
Subtotal	1,627	781	0	0	0	0	2,093	1,893	1,872	1,705	1,606	1,289	12,864
Electricity (kwh)	232,692	108,589	0	0	0	0	268,679	268,787	259,630	255,535	237,111	165,967	1,814,998
Tr. (kwh)	203,376	79,622	0	0	0	0	268,679	248,572		252,743	231,876	138,141	1,433,109
Gen(kwh)	29,316	28,967	0	0	0	0	0	20,215		2,792	5,235	25,826	112,351
Generator (hr)	84	83	0	0	0	0	0	65	12	8	15	74	341
Fuel (ltr)	5,266	5,197	0	0	0	0	0	3,900	660	472	885	4,666	21,046
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Barada Spring

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	1,997,976	1,466,681	0	0	332,371	1,227,011	2,474,865	3,028,400	2,850,340	2,935,330	2,861,830	2,945,360	22,456,595
Well Pump 1	718	616	0	0	138	691	728	733	720	742	712	741	6,539
2	736	616	0	0	150	699	711	734	713	742	717	736	6,558
3	739	618	0	0	101	713	719	708	706	738	710	720	6,472
4	739	619	0	0	151	624	593	727	710	722	705	740	6,330
5	739	618	0	0	153	714	726	742	715	721	620	748	6,488
6	739	615	0	0	153	714	581	684	690	726	695	735	6,330
7	739	618	0	0	152	713	588	693	710	726	705	743	6,387
8	739	619	0	0	151	714	574	716	710	724	707	743	6,397
9	736	616	0	0	126	713	322	719	710	721	706	740	6,109
10							282	728	711	724	705	736	3,886
11							734	742	716	740	732	732	4,376
12							734	742	733	741	732	695	4,337
13							735	743	735	741	733	743	4,390
14							734	735	647	737	708	742	4,303
15							724	738	712	737	706	741	4,358
Subtotal	6,624	5,555	0	0	1,273	6,295	8,761	10,884	10,598	10,982	10,533	11,031	83,200
Electricity (kwh)	562,480	535,780			132,440	614,040	808,379	903,521	879,772	914,398	874,355	918,177	7,143,262
Tr. (kwh)							230,459	272,281	782,592	845,598	774,455		2,905,385
Gen(kwh)	562,400	535,780			132,440	614,040	577,920	631,240	97,180	68,800	99,900		3,319,700
Generator (hr)	749	633			154	714	672	734	113	80	123	138	4,091
Fuel (ltr)	161,000	132,600			36,100	155,700	147,200	160,300	24,800	17,300	22,600	25,000	882,600

Station Name : Figeh Spring

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Main spring 1	744	315	0	0	0	473	744	744	720	743	718	559	5,760
2	742	315	0	0	0	473	744	741	714	743	698	556	5,729
3	731	315	0	0	0	472	723	773	573	0	0	457	4,044
4	275	275	0	0	0	454	192	0	0	0	0	0	1,196
Subtotal	2,492	1,220	0	0	0	1,892	2,403	2,261	2,007	1,486	1,416	1,572	16,739
Electricity (kwh)	600,234	300,656	64,386	61,215	70,384	507,892	509,430	768,186	635,862	417,280	418,400	434,040	4,788,885
Tr. (kwh)	520,122	270,829	63,111	58,240	58,357	472,825	452,000	477,000	422,600	404,800	395,200	303,400	3,898,484
Gen(kwh)	80,112	35,827	1,275	2,975	12,027	24,977	56,430	291,186	213,262	12,480	19,200	130,640	890,401
Gen 1000 (kwh)	51,850	34,850	0	850	8,500	23,800	28,900	6,400	11,200	8,000	15,200	103,200	292,750
(hr)	61	41	0	1	10	28	34	8	14	10	19	129	
Fuel (ltr)	10,553	7,093	0	173	1,730	4,844	5,882	1,384	2,422	2,000	3,800	25,800	65,680
Gen. 900 (kwh)	10,200	340	0	0	340	7,140	17,340	6,120	4,760	2,880	0	24,840	73,960
(hr)	30	1	0	0	1	21	51	18	14	8	0	69	
Fuel (ltr)	2,430	81	0	0	80	3,680	4,080	1,440	1,120	520	0	4,485	15,885
Gen. 250 (kwh)	18,062	637	1,275	2,125	3,187	4,037	10,200	4,200	315	1,600	4,000	11,600	61,238
(hr)	85	3	6	10	15	19	48	20	15	8	20	58	
Fuel (ltr)	5,220	186	332	620	930	1,178	2,926	1,240	930	1,100	1,000	2,900	18,262
Chloride (kg)	5,400	5,310	6,630	6,630	6,826	6,630	6,630	6,550	6,300	6,510	6,300	6,550	76,810

Station Name : Side Spring

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Pump 1	743	540	23	0	0	523	744	744	720	741	705	646	6,127
2	743	540	23	0	0	523	744	744	720	741	707	646	6,131
3	743	540	23	0	0	523	744	744	720	741	707	646	6,131
4	743	540	23	0	0	523	744	744	720	741	689	644	6,113
5	743	540	23	0	0	523	744	744	720	741	707	644	6,131
6	743	563	23	0	0	523	744	741	720	741	706	646	6,153
7	725	563	23	0	0	522	744	741	720	741	706	646	6,134
8	675	510	23	0	0	520	744	741	720	741	705	646	6,026
9	123	169	0	0	0	358	744	741	720	718	0	646	4,222
10	0	0	0	0	0	0	51	0	0	0	0	0	51
11	0	0	0	0	0	0	45	0	0	0	0	0	45
12	0	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	138	0	138
Subtotal	5,981	4,945	184	0	0	4,538	6,792	6,696	6,480	6,846	5,768	5,814	53,304

Station Name : Figeh Booster Pump

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Hours	958	1,113	930	1,113	1,456	1,861	1,966	1,864	1,930	1,577	1,177	1,265	17,280
to Village Reservoir													
Booster Pump 1	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	112	135	168	309	430	402	469	420	414	262	210	274	3,626
5	402	400	420	428	481	600	555	359	468	471	416	443	5,445
6	315	371	390	376	343	340	431	537	504	410	447	415	4,885
Subtotal	829	906	930	1,113	1,254	1,342	1,455	1,307	1,386	1,143	1,073	1,132	13,945
to Irrigation Canal													
Booster Pump 1	85	127	0	0	126	248	208	310	200	214	141	61	1,819
2	44	8	0	0	66	271	303	238	264	215	158	72	1,711
Subtotal	129	207	0	0	192	519	511	548	554	429	299	133	3,521

Station Name : Ain Hatoush Spring

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Pump 1	715	528	23	0	0	392	743	714	720	741	718	626	5,920
2	715	528	23	0	0	392	743	714	720	741	432	626	5,625
3	715	528	23	0	0	392	743	625	0	166	715	616	4,523
4	715	528	23	0	0	392	695	572	0	90	720	625	4,360
5	386	528	23	0	0	363	636	251	0	0	426	502	3,225
Subtotal	3,246	2,640	115	0	0	1,931	3,570	2,876	1,440	1,738	3,011	3,089	23,656
Electricity (kwh)	175,471	142,560	8,210	750	1,800	104,274	192,780	162,780	79,200	95,550	165,660	169,895	1,296,940
Tr. (kwh)	165,751	133,200	4,770	0	0	102,114	188,820	157,630	75,350	90,450	162,260	166,155	1,246,549
Gen(kwh)	9,720	9,360	1,440	720	1,800	2,160	3,960	5,150	3,850	5,100	3,400	3,740	50,400
Generator (hr)	27	26	4	2	5	6	11	2	11	15	10	11	133
Fuel (ltr)	1,800	1,820	280	140	350	420	770	140	980	1,050	700	770	9,310

Station Name : Dcir Mosharen Spring

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Pump 1	710	395	0	0	0	345	723	729	695	330	490	420	4,837
2	710	395	0	0	0	344	723	729	695	538	683	495	5,312
3	710	395	0	0	0	343	723	729	695	599	683	331	5,158
4	710	395	0	0	0	343	691	729	695	551	682	496	5,292
5	389	366	0	0	0	322	537	723	643	5	699	50	3,734
6	0	0	0	0	0	229	237	696	22	586	0	0	1,770
7	0	0	0	0	0	0	0	4	0	0	0	0	4
Subtotal	3,229	1,946	0	0	0	1,926	3,634	4,339	3,445	2,589	3,237	1,788	26,133
Electricity (kwh)	321,080	192,650	0	0	0	160,300	325,900	356,300	307,200	204,200	295,100	125,150	2,287,880
Tr. (kwh)	321,080	192,650	0	0	0	160,300	325,900	356,300	307,200	204,200	295,100	125,150	2,287,880

Station Name : J Jemaya Service Reservoir

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	301,400	291,700	278,500	247,500	255,000	305,400	342,150	306,150	311,050	343,650	317,250	288,450	3,718,550
Operation 1	397	393	381	322	374	269	181	280	303	289	292	324	3,805
2	396	403	371	326	364	268	191	274	303	250	273	339	3,758
3	399	385	386	327	368	225	195	274	302	279	236	343	3,719
4	210	185	169	175	248	173	165	176	231	198	143	218	2,289
5							268	218	143	181	175	36	1,021
6							238	235	140	185	160	23	981
7							163	99	33	75	85	19	465
Subtotal (hr)	1,402	1,366	1,307	1,150	1,354	935	1,401	1,547	1,455	1,457	1,362	1,302	16,039
Electricity (kwh)	96,380	93,415	89,180	79,125	94,210	100,209	107,440	122,651	100,160	96,960	77,664	65,272	1,122,866
Tr. (kwh)	82,000	78,700	72,500	70,900	77,700	86,640	106,200	121,011	97,860	95,920	75,104	63,072	1,027,607
Gen(kwh)	2,620	4,110	3,000	1,520	640	2,560	1,240	1,040	2,300	1,040	2,560	2,208	29,300
Generator (hr)	12	19	32	7	3	12	6	5	11	5	12	13	137
Fuel (ltr)	477	802	1,334	210	140	498	143	216	508	217	530	602	5,727

Station Name : K 3 Kassion High Service Reservoir

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	73,210	78,950	83,635	80,556	92,165	92,530	101,912	105,915	103,150	99,872	87,525	101,952	1,100,972
Kassion High (m	71,560	77,250	81,790	78,660	89,540	89,620	98,590	102,440	99,820	96,470	84,330	98,940	1,069,010
Operation 1	307	230	247	224	236	238	231	293	317	360	330	329	3,312
2	319	255	245	223	256	232	239	289	314	354	218	355	3,299
3	221	249	271	280	293	361	396	297	189	181	227	266	3,231
4	216	162	120	89	233	235	264	374	439	372	330	230	3,072
5	204	204	214	215	242	230	334	364	442	239	162	281	3,132
6	0	191	212	221	227	216	237	262	244	325	384	356	2,925
Subtotal (hr)	1,268	1,287	1,299	1,256	1,487	1,515	1,701	1,880	1,945	1,881	1,681	1,817	18,998
T.V (m3)	1,650	1,700	1,845	1,876	2,625	2,650	3,322	3,475	3,330	3,402	2,995	3,032	31,902
Operation 1	0	0	0	2	0	5	8	0	4	10	41	133	203
2	0	0	0	2	0	6	8	0	7	10	41	133	207
3	35	33	39	36	51	50	71	47	55	64	36	3	520
4	31	35	43	37	54	51	55	92	74	63	47	4	582
Subtotal (hr)	66	68	73	77	105	112	142	139	140	147	165	269	1,513
G Total (hr)	1,334	1,355	1,372	1,335	1,592	1,627	1,843	2,019	2,085	2,028	1,826	2,086	20,511
Electricity (kwh)	64,145	63,060	63,830	66,040	75,180	74,330	83,630	91,665	93,345	93,120	82,190	92,385	934,230
Tr. (kwh)	61,385	61,430	61,930	64,360	75,980	73,600	82,140	88,165	86,685	92,520	82,190	91,565	922,008
Gen(kwh)	2,760	1,630	1,900	1,680	0	640	1,480	3,520	7,660	600	0	820	22,700
Generator (hr)	13	8	9	8	0	3	7	17	37	3	0	4	109
Fuel (ltr)	448	269	295	255	0	98	212	520	1,085	99	0	132	3,413

Station Name : I A & I S Wali Service Reservoirs

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	568,810	514,150	520,702	560,068	598,840	655,665	725,528	715,411	593,286	540,808	629,356	574,815	7,111,954
For K 1 (m3)	332,105	322,185	326,635	326,145	364,290	388,553	458,473	459,163	359,381	333,516	383,293	355,960	4,413,075
Operation 1				335	358	360	370	336	286	265	310	309	2,929
2				332	358	361	365	315	262	245	278	309	2,810
3				316	362	355	363	278	225	219	253	312	2,683
4				3	4	55	145	246	166	155	183	85	1,042
5					13	56	175	256	175	164	167	81	1,083
Subtotal (hr)	1,007	977	991	989	1,305	1,187	1,418	1,435	1,119	1,018	1,191	1,096	13,533
For K 3 (m3)	187,705	191,965	194,067	200,692	234,550	243,712	262,053	256,250	234,405	207,298	246,059	218,623	2,677,399
Operation 1				250	227	245	277	263	224	202	270	234	2,192
2				36	194	240	197	202	174	165	166	162	1,494
3				306	250	244	279	282	285	238	269	242	2,415
4				281	270	265	275	249	280	219	249	269	2,259
Subtotal (hr)	816	835	844	873	941	958	1,028	996	963	824	954	847	10,594
G Total (hr)	1,824	1,812	1,835	1,862	2,246	2,145	2,356	2,431	2,082	1,842	2,159	1,943	24,127
Electricity (kwh)	95,692	98,568	101,936	183,361	209,414	220,254	247,694	245,504	200,252	203,211	221,393	217,628	2,245,557
Tr. (kwh)	94,300	97,200	100,200	97,655	113,934	219,456	247,132	245,369	198,882	203,442	220,857	217,628	2,056,255
Gen(kwh)	1,392	888	1,736	329	434	1,068	562	135	1,370	269	536	40	8,581
Generator (hr)	3	2	4	1	1	3	2	2	7	3	13	1	42
Fuel (ltr)	1,503	1,000	2,000	361	485	2,232	922	29	306	74	536	15	5,892

Station Name : II E East Service Reservoir

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	578,655	697,810	606,900	686,155	731,455	732,335	758,118	812,543	823,143	704,470	658,995	672,525	8,655,091
Beeze village (m	283,850	275,400	292,750	307,200	290,350	283,250	295,750	293,100	294,750	281,150	278,550	293,150	3,463,250
(hr)	1,381	1,374	1,403	1,522	1,431	1,411	1,577	1,456	1,419	1,419	1,401	1,465	17,269
Akrad high (m3)	210,040	190,690	193,980	196,840	210,430	207,150	215,158	220,710	213,450	200,950	175,260	167,200	2,401,858
(hr)	1,323	1,212	1,231	1,222	1,329	1,312	1,365	1,406	1,352	1,268	1,008	1,075	15,103
Beeze Beboush (	230,325	188,210	177,420	145,881	189,330	196,455	200,535	251,370	274,070	170,610	138,165	161,880	2,328,251
(hr)	752	615	580	575	606	630	655	833	909	527	447	525	7,654
Fisheen Hospita	36,800	34,050	33,300	28,850	32,750	35,200	33,000	36,600	35,758	35,980	35,500	37,550	419,338
(hr)	736	681	666	577	655	704	740	732	715	709	710	745	8,370
Ibn Nafees Hosp	11,630	9,450	9,450	7,425	8,595	10,260	9,675	10,260	11,415	12,780	11,520	11,745	124,385
(hr)	258	210	210	165	191	228	215	228	247	284	256	261	2,753
Subtotal (hr)	4,459	4,092	4,090	4,661	4,212	3,353	4,552	4,655	4,612	4,207	3,822	4,071	51,149
Electricity (kwh)	658,445	597,333	581,177	574,258	624,546	415,016	639,200	449,590	656,800	0	542,418	564,700	6,303,482
Tr. (kwh)	657,200	596,400	579,000	574,258	624,546	415,016	639,200	447,780	656,800		540,000	564,200	6,294,900
Gen(kwh)	1,244	933	2,077	0	0	0	0	1,810			2,418		6,064
Generator (hr)	4	4	8	0	1	2	3	5	1	1	26		55
Fuel (ltr)	165	165	585	0	50	50	156	468	50	50	1,203		2,936

Station Name : M I Mezze Service Reservoir

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	783,675	904,100	996,540	971,800	1,099,750	1,121,075	1,135,300	1,025,375	930,675	815,425	831,725	1,046,275	11,691,975
Operation (hr) 1	383	476	518	488	522	561	621						3,561
2	397	445	481	494	561	553	583						3,513
3	487	508	602	545	659	680	701						4,182
4	484	485	568	565	663	673	684						4,682
5	256	313	297	304	418	351	244						2,183
6	283	276	366	318	294	295	330						2,162
7	0	0	0	0	0	0	0						0
8	247	246	235	244	364	378	424						2,178
9	173	320	315	307	292	337	386						2,130
Subtotal	2,630	3,068	3,382	3,247	3,773	3,828	3,973	3,370	2,770	2,769	2,768	3,533	39,292
Electricity (kwh)	182,855	210,950	232,550	226,320	255,865	261,020	274,395	236,065	218,693	191,635	191,950	243,468	2,725,766
Tr. (kwh)	175,170	210,252	232,201	226,283	255,865	261,020	271,045	231,358	215,173	190,296	191,950	242,072	2,705,653
Gen(kwh)	7,685	698	349	437	0	0	349	5,329	3,520	339	0	1,396	20,812
Generator (hr)	22	2	1	1	0	0	1	21	10	1	0	4	63
Fuel (ltr)	1,650	150	75	75	0	0	75	1,275	750	75	0	300	4,425

Station Name : D Dummar Service Reservoir

1996	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	261,180	182,980	555,300	215,160	245,000	245,920	258,640	291,840	272,640	266,820	235,840	245,940	2,880,641
Operation 1													0
2													0
3													0
Horizontal 4	583	555	581	568	639	20	478	483	368	603	423	469	5,522
Horizontal 5	535	500	572	560	596	508	511	486	494	467	278	226	5,783
Horizontal 6	319	252	292	319	535	559	412	493	488	426	301	456	4,826
						255	305	274	340	326	373	349	2,173
Subtotal (hr)	1,437	1,307	1,445	1,447	1,770	1,342	1,706	1,736	1,670	1,622	1,375	1,499	18,306
Electricity (kwh)	143,990	130,700	141,500	136,500	175,000	166,352	185,800	189,056	179,416	174,696	153,038	152,796	1,930,844
Tr. (kwh)	142,850	129,230	139,980	144,400	164,290	165,092	182,110	183,596	173,116	173,436	149,356	152,656	1,900,026
Gen(kwh)	830	1,470	4,620	2,100	10,710	1,260	3,780	5,460	6,300	1,260	1,680	2,140	41,610
Generator (hr)	2	4	11	5	25	3	9	13	15	3	4	17	111
Fuel (ltr)	166	332	1,100	575	2,456	532	861	1,223	1,418	536	359	1,583	11,151

Station Name : Mazraa PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)				0	0	0							0
Well pump 1	743	608	79	0	0	0							1,430
2	583	597	61	0	0	0							1,241
3	744	608	41	0	0	0							1,393
4	741	586	63	0	0	0							1,391
5	669	578	78	0	0	0							1,325
6	738	601	130	0	0	0							1,469
7	559	574	76	0	0	0							1,209
8	559	571	72	0	0	0							1,202
9	559	571	72	0	0	0							1,202
10	559	571	76	0	0	0							1,206
11	547	570	64	0	0	0							1,181
12	559	594	78	0	0	0							1,231
13	559	571	65	0	0	0							1,195
14	559	571	65	0	0	0							1,195
15	0	0	0	0	0	0							0
16	559	638	169	0	0	0							1,366
17	559	637	169	0	0	0							1,365
18	559	638	169	0	0	0							1,366
19	558	575	61	0	0	0							1,194
20	560	531	61	0	0	0							1,152
21	560	579	61	0	0	0							1,200
22	0	0	0	0	0	0							0
23	544	571	61	0	0	0							1,176
24	564	555	56	0	0	0							1,171
Subtotal	13,130	12,895	1,825	0	0	0	0	0	0	0	0	0	27,850
Booster pump 1	546	552	62	0	0	0							1,160
2	558	530	62	0	0	0							1,150
3	558	552	62	0	0	0							1,172
4	290	99	20	0	0	0							409
5	65	100	28	0	0	0							193
6	25	44	5	0	0	0							74
7	0	0	0	0	0	0							0
8	0	0	728	0	0	0							728
9	741	658	732	0	0	0							2,131
10	740	656	0	0	0	0							1,396
Subtotal	3,523	3,201	1,699	0	0	0	0	0	0	0	0	0	8,423
Electricity (kwh)	415,500	368,150	141,600	0	0	0	0	0	0	0	0	0	925,250
Tr. (kwh)	415,500	367,400	138,600										921,500
Gen(kwh)	0	750	3,000										3,750
Generator (hr)	0	1	4										5
Fuel (ltr)	0	150	640										790
Chloride (kg)	0	0	0										0

Station Name : Ibn Asaker PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	565,356	658,817	0	0	0	0							1,224,173
Well pump 1	514	588	0	0	0	0							1,102
2	518	586	0	0	0	0							1,104
3	509	585	0	0	0	0							1,094
4	504	581	0	0	0	0							1,085
5	342	586	0	0	0	0							928
6	462	498	0	0	0	0							960
7	448	567	0	0	0	0							1,015
8	432	103	0	0	0	0							535
9	1	553	0	0	0	0							554
10	435	0	0	0	0	0							435
11	400	536	0	0	0	0							936
12	509	511	0	0	0	0							1,020
13	395	491	0	0	0	0							886
14	321	1	0	0	0	0							322
15	188	42	0	0	0	0							230
16	171	532	0	0	0	0							709
17	508	586	0	0	0	0							1,094
18	518	583	0	0	0	0							1,101
19	518	586	0	0	0	0							1,104
Subtotal	7,679	8,515	0	0	0	0	0	0	0	0	0	0	16,194
Booster pump 1	437	564	0	0	0	0							1,001
2	480	587	0	0	0	0							1,067
3	439	495	0	0	0	0							934
4	488	560	0	0	0	0							1,048
5	477	570	0	0	0	0							1,047
6	422	308	0	0	0	0							730
7	76	31	0	0	0	0							107
8	29	0	0	0	0	0							29
Subtotal	2,805	3,113	0	0	0	0	0	0	0	0	0	0	5,918
Electricity (kwh)	234,332	271,031	0	0	0	0	0	0	0	0	0	0	505,363
Tr. (kwh)	233,412	269,191											502,603
Gen(kwh)	920	1,840											2,760
Generator (hr)	4	8											12
Fuel (ltr)	300	600											900
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Kaboun PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Water (m3)	218,900	123,140	0	0	0	0							342,040
Well pump 1	728	644	0	0	0	0							1,372
2	728	644	0	0	0	0							1,372
3	728	644	0	0	0	0							1,372
4	728	643	0	0	0	0							1,371
5	728	644	0	0	0	0							1,372
Subtotal	3,640	3,219	0	0	0	0	0	0	0	0	0	0	6,859
Boost Water(m3)	201,000	182,000	0	0	0	0							383,000
Booster pump 1	495	451	0	0	0	0							946
2	510	459	0	0	0	0							969
Subtotal	1,005	910	0	0	0	0	0	0	0	0	0	0	1,915
Electricity (kwh)	199,135	177,696	0	0	0	0	0	0	0	0	0	0	376,831
Tr (kwh)	199,135	177,696											376,831
Gen(kwh)	0	0	0	0	0	0	0	0	0	0	0	0	0
Generator (hr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Fuel (ltr)	0	0	0	0	0	0	0	0	0	0	0	0	0
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Kadam Store PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	162,750	120,843	0	0	0								283,593
Well pump 1	397	328	0	0	0								725
2	0	0	0	0	0								0
3	0	0	0	0	0								0
4	381	321	0	0	0								702
5	388	335	0	0	0								723
6	0	0	0	0	0								0
7	349	0	0	0	0								349
8	379	384	0	0	0								763
9	383	319	0	0	0								702
10	0	0	0	0	0								0
Subtotal	2,277	1,667	0	0	0	0	0						3,944
Booster pump 1	119	77	0	0	0								196
2	191	117	0	0	0								308
3	10	36	0	0	0								46
4	53	56	0	0	0								109
Subtotal	373	286	0	0	0								659
Electricity (kwh)	64,875	46,257	0	0	0	0	0						111,132
Tr (kwh)	64,875	46,257											111,132
Gen(kwh)	0	0	0	0	0	0	0						0
Generator (hr)	0	0	0	0	0	0							0
Fuel (ltr)	0	0	0	0	0	0							0
Chloride (kg)	0	0	0	0	0	0							0

Station Name : Omawyn PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)													0
Well pump 1	542	340	0	0									882
2	578	386	0	0									964
3	552	545	0	0									1,097
4	532	643	0	0									1,175
5	586	454	0	0									1,040
6	534	386	0	0									920
7	0	0	0	0									0
8	542	545	0	0									1,087
9	548	545	0	0									1,093
10	536	395	0	0									931
11	571	451	0	0									1,022
12	548	147	0	0									695
13	542	641	0	0									1,183
14	556	600	0	0									1,156
Subtotal	7,181	6,078	0	0	0	0							13,259
Booster pump 1	0												0
2													0
3													0
4													0
5													0
6													0
7													0
Subtotal	0	0	0	0	0	0							0
Electricity (kwh)	0	0	0	0	0	0							0
Tr (kwh)													0
Gen(kwh)													0
Generator (hr)	2	2	2										6
Fuel (ltr)	336	336	338										1,170
Chloride (kg)													0

Station Name : Jober PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	600,100	550,400	0	0	0	0	0						1,150,500
Well pump 1	734	652	0	0	0	0	0						1,386
2	720	657	0	0	0	0	0						1,377
3	725	664	0	0	0	0	0						1,389
4	729	662	0	0	0	0	0						1,391
5	729	643	0	0	0	0	0						1,372
6	717	665	0	0	0	0	0						1,382
7	721	660	0	0	0	0	0						1,381
8	714	638	0	0	0	0	0						1,352
9	233	184	0	0	0	0	0						417
10	729	659	0	0	0	0	0						1,388
11	727	639	0	0	0	0	0						1,366
12	731	662	0	0	0	0	0						1,393
13	723	612	0	0	0	0	0						1,335
14	730	658	0	0	0	0	0						1,388
Subtotal	9,662	8,655	0	0	0	0	0	0	0	0	0	0	18,317
Booster pump 1	648	548	0	0	0	0	0						1,196
2	526	510	0	0	0	0	0						1,036
3	622	583	0	0	0	0	0						1,205
4	348	332	0	0	0	0	0						720
5	234	220	0	0	0	0	0						454
Subtotal	2,418	2,193	0	0	0	0	0	0	0	0	0	0	4,611
Electricity (kwh)	365,612	327,716	0	0	0	0	0	0	0	0	0	0	693,328
Tr. (kwh)	360,600	323,100											683,700
Gen(kwh)	5,012	4,616											9,628
Generator (hr)	21	18											39
Fuel (hr)	1,531	1,450											2,981
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : University PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	268,130	372,810	0	0	0	0	0						640,940
Well pump 1	358	329	0	0	0	0	0						687
2	0	0	0	0	0	0	0						0
3	170	371	0	0	0	0	0						541
4	345	434	0	0	0	0	0						779
5	354	428	0	0	0	0	0						782
6	0	0	0	0	0	0	0						0
7	345	493	0	0	0	0	0						838
8	0	0	0	0	0	0	0						0
9	311	421	0	0	0	0	0						732
10	0	0	0	0	0	0	0						0
11	347	498	0	0	0	0	0						845
12	194	445	0	0	0	0	0						639
Subtotal	2,424	3,419	0	0	0	0	0	0	0	0	0	0	5,843
Booster pump 1	358	499											857
2	357	504											861
3	351	505											856
4	358	473											831
5	361	499											860
Subtotal	1,785	2,477	0	0	0	0	0	0	0	0	0	0	4,262
Electricity (kwh)	153,360	212,739	0	0	0	0	0	0	0	0	0	0	366,099
Tr. (kwh)	153,360	210,639											363,999
Gen(kwh)	0	2,100											2,100
Generator (hr)	0												0
Fuel (hr)	0												0
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Kadam Railway PWC

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	423,240	0	0	0	0	0	0						423,240
Well pump 1	564	0	0	0	0	0	0						564
2	564	0	0	0	0	0	0						564
3	565	0	0	0	0	0	0						565
4	563	0	0	0	0	0	0						563
5	363	0	0	0	0	0	0						363
6	379	0	0	0	0	0	0						379
7	552	0	0	0	0	0	0						552
8	372	0	0	0	0	0	0						372
9	552	0	0	0	0	0	0						552
10	553	0	0	0	0	0	0						553
Subtotal	5,026	0	0	0	0	0	0	0	0	0	0	0	5,026
Booster pump 1	858	0	0	0	0	0	0						858
2	22	0	0	0	0	0	0						22
3	542	0	0	0	0	0	0						542
4	290	0	0	0	0	0	0						290
5	0	0	0	0	0	0	0						0
Subtotal	1,312	0	0	0	0	0	0	0	0	0	0	0	1,312
Electricity (kwh)	0	0	0	0	0	0	0	0	0	0	0	0	0
Tr. (kwh)													0
Gen(kwh)													0
Generator (hr)													0
Fuel (hr)													0
Chloride (kg)	0	0	0	0	0	0	0	0	0	0	0	0	0

Station Name : Bacada Spring

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	2,038,510	2,844,980	1,559,980										6,813,430
Well Pump 1	744	669	458										1,871
2	744	669	496										1,909
3	688	668	523										1,879
4	737	647	259										1,643
5	744	694	237										1,675
6	721	454	253										1,428
7	743	648	264										1,655
8	738	646	260										1,644
9	737	644	257										1,638
10	738	641	257										1,636
11	740	644	526										1,910
12	740	669	575										1,984
13	744	672	580										1,996
14	739	662	439										1,840
15	744	669	473										1,886
Subtotal	11,041	9,606	5,827	0	0	0	0	0	0	0	0	0	26,564
Electricity (kwh)	916,971	796,162	479,519	0	0	0	0	0	0	0	0	0	2,192,652
Tr. (kwh)	832,531	605,262	327,999										1,765,792
Gen(kwh)	84,440	190,900	151,520										426,860
Generator (hr)	97	248	147										492
Fuel (ltr)	17,500	41,000	23,000										85,536

Station Name : Figeh Spring

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Main spring 1	737	670	179	0	0								1,586
2	737	670	179	0	0								1,586
3	737	670	179	0	0								1,586
4	0	0	0	0	0								0
Subtotal	2,211	2,010	537	0	0	0	0						4,758
Electricity (kwh)	429,930	499,650	293,920	66,720	64,180	0							1,354,360
Tr. (kwh)	355,400	381,800	288,400	61,260	62,670								1,149,530
Gen(kwh)	74,530	117,850	5,520	5,460	1,470	0	0	0	0	0	0	0	204,830
Gen 1400(kwh)	29,000	92,800	3,200	0	0								125,000
(hr)	37	116	4	0	0								
Fuel (ltr)	5,475	20,880	800	0	0								27,155
Gen 400 (kwh)	32,960	18,960	840	0	0								52,560
(hr)	103	53	2	0	0								
Fuel (ltr)	6,695	3,345	140	0	0								10,280
Gen. 250 (kwh)	11,970	6,090	1,480	5,460	1,470								26,470
(hr)	57	29	8	26	7								
Fuel (ltr)	2,850	1,450	400	1,300	350								6,350
Chloride (kg)	4,500	7,100	7,100	5,300	7,130								33,230

Station Name : Side Spring

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Pump 1	709	629	575	0	0								1,953
2	709	629	575	0	0								1,954
3	709	630	573	0	0								1,953
4	714	630	574	0	0								1,958
5	724	630	574	0	0								1,898
6	714	600	524	0	0								1,838
7	714	649	279	0	0								1,593
8	714	630	383	0	0								1,767
9	714	661	568	0	0								1,943
10	0	67	568	0	0								635
11	0	67	0	0	0								67
12	0	67	0	0	0								67
13	0	67	0	0	0								67
Subtotal	6,421	6,079	5,243	0	0	0	0						17,744

Station Name : Figeh Booster Pump

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Total Hours	1,122	1,055	1,349	1,075	1,306	0							5,707
Voltage Reading													
Booster Pump 1	0	0	0	0	0								0
2	0	0	0	0	0								0
3	0	0	0	0	0								0
4	279	326	267	268	393								1,845
5	422	311	361	315	422								1,831
6	365	358	440	386	491								2,034
Subtotal	1,066	995	1,068	1,075	1,306	0							5,510
Voltage Load													
Booster Pump 1	30	30	31	0	0								91
2	26	30	50	0	0								106
Subtotal	56	60	81	0	0	0							197

Station Name : Ain Haroush Spring

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Pump 1	744	667	474	0									1,885
2	744	638	497	0									1,879
3	744	656	494	0									1,894
4	729	634	444	0									1,808
5	0	511	0	0									511
Subtotal	2,952	3,068	1,959	0	0	0	0						7,999
Electricity (kwh)	159,680	198,560	128,320	2,880	0	0	0						489,440
Tr. (kwh)	155,200	191,200	118,200	2,880									467,480
Gen(kwh)	4,480	7,360	10,200	0									22,040
Generator (hr)	14	23	30	0									67
Fuel (ltr)	980	1,610	2,100	0									4,690

Station Name : Deir Mukaren Spring

1997		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Well Pump	1	485	488	298										1,271
	2	680	657	299										1,636
	3	538	445	301										1,284
	4	682	665	300										1,647
	5	712	665	299										1,676
	6	0	0	0										0
	7	0	0	0										0
Subtotal		3,097	2,920	1,497	0	0	0	0						7,514
Electricity (kwh)		293,100	210,973	145,700	0	0	0	0						649,773
Tr. (kwh)		293,100	210,973	145,700										649,773

Station Name : J Jemaya Service Reservoir

1997		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)		268,100	283,200	321,300	330,900									1,261,300
Operation	1	355	343	405	412									1,515
	2	304	430	434	415									1,583
	3	392	355	393	430									1,570
	4	193	187	271	269									920
	5													0
	6													0
	7													0
Subtotal (hr)		1,244	1,315	1,403	1,526	0	0	0	0	0	0	0	0	5,568
Electricity (kwh)		87,720	78,620	102,520	105,555	0	0	0	0	0	0	0	0	374,415
Tr. (kwh)		85,400	72,400	100,380	99,995									358,175
Gen(kwh)		2,320	6,220	2,140	5,560									16,240
Generator (hr)		11	29	10	26									76
Fuel (ltr)		893	1,667	303	928									2,871

Station Name : K 3 Kassion High Service Reservoir

1997		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)		109,564	95,697	107,200	104,772	0	0	0						417,293
Kassion High (m		106,590	92,850	103,700	101,810									404,950
Operation	1	351	214	330	284									1,179
	2	327	245	272	321									1,165
	3	313	262	338	354									1,267
	4	327	314	333	238									1,212
	5	299	320	217	298									1,134
	6	348	355	343	292									1,338
Subtotal (hr)		1,965	1,710	1,833	1,787	0	0	0	0	0				7,295
I.V (m3)		2,974	2,807	3,500	2,962									12,243
Operation	1	127	107	4	2									240
	2	126	108	4	1									239
	3	6	6	71	58									141
	4	2	11	62	59									133
Subtotal (hr)		134	125	140	118	0	0	0	0	0				517
G.Total (hr)		2,099	1,835	1,973	1,905	0	0	0	0	0				7,812
Electricity (kwh)		110,255	83,690	90,330	85,700	0	0	0	0	0				370,175
Tr. (kwh)		110,255	83,890	89,330	85,080									368,555
Gen(kwh)		0	200	800	620									1,620
Generator (hr)		0	1	4	3									8
Fuel (ltr)		0	32	120	41									193

Station Name : I A & I S Wali Service Reservoirs

1997		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)		581,695	568,555	538,141	550,598	0	0	0	0	0	0	0	0	2,179,388
For K 1 (m3)		366,260	324,150	330,700	330,948									1,352,058
Operation	1	280	280	260	256									1,076
	2	287	215	261	206									969
	3	304	249	261	236									1,050
	4	125	155	116	161									557
	5	135	150	124	179									588
Subtotal (hr)		1,131	1,050	1,022	1,032	0	0	0	0	0	0	0	0	4,195
For K 3 (m3)		215,435	181,405	207,640	219,850									822,330
Operation	1	304	266	267	282									1,119
	2	34	0	30	66									130
	3	305	286	321	312									1,224
	4	212	219	220	223									924
Subtotal (hr)		937	802	903	883	0	0	0	0	0	0	0	0	3,525
G.Total (hr)		2,068	1,852	1,925	1,915	0	0	0	0	0	0	0	0	7,720
Electricity (kwh)		212,861	190,532	203,641	192,540	0	0	0	0	0	0	0	0	799,574
Tr. (kwh)		212,698	189,405	203,582	191,738									797,423
Gen(kwh)		163	1,127	59	802									2,151
Generator (hr)		2	5	2	4									13
Fuel (ltr)		41	242	22	181									486

Station Name : II E East Service Reservoir

1997	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Water (m3)	660,865	654,683	683,265	723,510	685,070	726,025	0	0	0	0	0	0	4,133,418
Berze village (m3	290,050	264,050	291,900	282,900	300,400	296,000							1,725,300
(hr)	1,447	1,319	1,456	1,412	1,510	1,494							8,638
Akrad high (m3)	169,030	193,080	178,950	169,490	156,310	212,700							1,079,550
(hr)	1,862	974	1,133	1,073	979	1,365							7,386
Berze Bobeeth (1	162,555	159,675	169,335	230,540	184,320	170,835							1,077,260
(hr)	527	517	549	746	598	556							3,493
Tishreen Hospita	28,750	28,558	33,050	29,900	32,800	11,840							164,898
(hr)	575	571	661	598	656	296							3,357
Ibn Nafees Hosp	10,480	9,320	10,030	10,680	11,240	34,650							86,410
(hr)	207	233	251	267	281	693							1,932
Subtotal (hr)	4,618	3,614	4,050	4,096	4,024	4,404	0	0	0	0	0	0	24,8

Summary of Distribution Pipes in DMA Large Block

DMA Block	Particular	D80	D100	D125	D150	D200	D250	D300	D350	D400	D450	D500	D600	D700	D800	D1000	D1100	D1200	Total
E01	Total Length	0	87	0	40	0	0	0	118	0	0	120	0	0	0	0	0	0	365 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1 no.
E02	Total Length	0	219	0	100	0	0	0	298	0	0	304	0	0	0	0	0	0	921 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3 no.
B01	Total Length	0	1,650	0	0	0	2,686	265	0	0	0	245	100	0	0	0	0	0	4,946 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12 no.
B02	Total Length	2,446	2,064	0	0	966	40	635	0	0	0	0	0	0	0	0	0	0	6,151 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	22	17	0	18	7	5	2	0	0	0	2	0	0	0	0	0	0	73 no.
B03	Total Length	3,097	24,395	0	9,404	2,830	3,372	803	427	913	0	1,909	4,810	0	1,573	0	0	0	53,533 m
	Cast Iron Pipe	(0)	(1,080)	(0)	(220)	(0)	(1,901)	(0)	(0)	(377)	(0)	(396)	(1,522)	(0)	(0)	(0)	(0)	(0)	(5,496) m
	Valve	7	126	0	33	23	10	1	0	3	0	0	1	0	0	0	0	0	204 no.
B04	Total Length	1,835	14,451	0	5,570	1,677	1,997	475	253	541	0	1,131	2,849	0	931	0	0	0	31,710 m
	Cast Iron Pipe	(0)	(640)	(0)	(130)	(0)	(1,126)	(0)	(0)	(223)	(0)	(234)	(902)	(0)	(0)	(0)	(0)	(0)	(3,255) m
	Valve	4	75	0	20	13	6	0	0	1	0	0	1	0	0	0	0	0	120 no.
D01	Total Length	0	2,448	0	1,116	0	90	140	0	0	0	0	0	0	0	0	0	0	3,794 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	19	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	24 no.
D02	Total Length	0	20,729	0	1,166	2,500	785	160	0	0	0	0	0	0	0	0	0	0	25,340 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	202	0	6	6	3	0	0	0	0	0	0	0	0	0	0	0	217 no.
D03	Total Length	818	40,981	0	2,914	2,020	4,952	2,648	0	3,007	0	125	3,520	0	2,066	0	0	0	63,051 m
	Cast Iron Pipe	(0)	(350)	(0)	(200)	(0)	(2,012)	(0)	(0)	(0)	(0)	(0)	(1,886)	(0)	(0)	(0)	(0)	(0)	(4,448) m
	Valve	5	364	0	28	7	10	6	0	4	0	0	0	0	0	0	0	0	424 no.
D04	Total Length	33,858	50,351	0	13,338	6,578	19,105	2,558	0	3,030	381	5,401	8,092	0	7,650	922	600	1,582	153,446 m
	Cast Iron Pipe	(187)	(4,263)	(0)	(3,073)	(2,395)	(7,444)	(0)	(0)	(1,313)	(0)	(1,155)	(2,577)	(0)	(0)	(0)	(0)	(0)	(22,407) m
	Valve	342	273	0	49	38	59	4	0	12	0	11	6	0	2	1	0	1	798 no.
D05	Total Length	5,040	15,004	57	2,357	1,760	3,859	314	0	412	0	532	665	66	56	64	1,000	797	31,983 m
	Cast Iron Pipe	(50)	(668)	(18)	(523)	(659)	(859)	(0)	(0)	(274)	(0)	(270)	(297)	(0)	(0)	(0)	(0)	(0)	(3,618) m
	Valve	50	52	0	7	7	6	2	0	1	0	2	2	0	0	0	0	1	130 no.
D06	Total Length	7,731	23,020	88	3,616	2,700	5,318	482	0	633	0	817	1,019	101	86	99	0	400	46,110 m
	Cast Iron Pipe	(76)	(1,025)	(28)	(802)	(1,011)	(1,318)	(0)	(0)	(421)	(0)	(415)	(455)	(0)	(0)	(0)	(0)	(0)	(5,551) m
	Valve	77	81	0	11	10	9	3	0	1	0	3	2	0	0	0	0	0	197 no.
D07	Total Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 no.
D08	Total Length	2,853	10,665	0	2,218	2,231	888	334	0	380	0	787	535	0	347	0	0	0	21,238 m
	Cast Iron Pipe	(0)	(513)	(0)	(377)	(1,168)	(281)	(95)	(0)	(346)	(0)	(207)	(231)	(0)	(0)	(0)	(0)	(0)	(3,218) m
	Valve	24	44	0	11	4	7	1	0	0	0	3	2	0	0	0	0	0	96 no.
D09	Total Length	13,640	50,981	0	10,603	10,663	4,249	1,596	0	1,818	0	3,765	2,561	0	1,661	0	0	0	101,537 m
	Cast Iron Pipe	(0)	(2,451)	(0)	(1,801)	(5,582)	(1,346)	(455)	(0)	(1,654)	(0)	(991)	(1,105)	(0)	(0)	(0)	(0)	(0)	(15,385) m
	Valve	114	213	0	55	20	31	4	0	1	0	12	10	0	0	0	0	0	460 no.

(Source : DAWSSA JICA)

Summary of Distribution Pipes in DMA Large Block

DMA Block	Particular	D80	D100	D125	D150	D200	D250	D300	D350	D400	D450	D500	D600	D700	D800	D1000	D1100	D1200	Total
D10	Total Length	56,261	167,514	640	26,314	19,646	49,594	3,506	0	4,600	0	5,941	7,419	735	628	0	2,600	0	345,398 m
	Cast Iron Pipe	(554)	(7,459)	(204)	(5,837)	(7,358)	(9,594)	(0)	(0)	(3,060)	(0)	(3,018)	(3,311)	(0)	(0)	(0)	(0)	(0)	(40,395) m
	Valve	562	586	2	81	75	62	19	0	11	0	20	18	0	2	0	2	0	1,440 no.
D11	Total Length	1,500	6,500	0	2,600	0	0	0	0	0	0	0	0	0	0	0	0	0	10,600 m
	Cast Iron Pipe	(0)	(0)	(0)	(820)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(820) m
	Valve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 no.
M01	Total Length	8,644	24,956	0	21,710	2,900	9,671	0	0	2,882	170	21,180	3,140	0	0	0	0	0	95,253 m
	Cast Iron Pipe	(0)	(1,256)	(0)	(2,530)	(650)	(1,420)	(0)	(0)	(1,552)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7,388) m
	Valve	45	115	0	42	15	21	3	0	2	0	4	4	0	2	0	0	0	253 no.
M02	Total Length	10,603	4,175	0	5,620	4,557	6,258	1,790	0	2,270	0	0	480	0	0	0	0	0	35,753 m
	Cast Iron Pipe	(0)	(950)	(0)	(450)	(2,900)	(2,900)	(0)	(0)	(200)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(7,400) m
	Valve	59	46	0	18	19	9	1	0	0	0	1	2	0	0	0	0	0	155 no.
M03	Total Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 no.
M04	Total Length	4,313	6,415	0	1,699	838	2,433	326	0	386	49	688	1,031	0	0	0	0	0	18,178 m
	Cast Iron Pipe	(24)	(543)	(0)	(391)	(305)	(948)	(0)	(0)	(167)	(0)	(147)	(328)	(0)	(0)	(0)	(0)	(0)	(2,853) m
	Valve	44	35	0	6	5	8	1	0	2	0	1	1	0	0	0	0	0	103 no.
Total	Total Length	152,639	466,605	785	110,385	61,866	115,297	16,032	1,096	20,872	600	42,945	36,221	902	14,998	1,085	4,200	2,779	1,049,307 m
	Cast Iron Pipe	(891)	(21,178)	(250)	(17,154)	(22,028)	(31,149)	(550)	(0)	(9,587)	(0)	(6,833)	(12,614)	(0)	(0)	(0)	(0)	(0)	(122,234) m
	Valve	1,355	2,261	2	390	249	247	47	0	38	0	61	49	0	6	1	2	2	4,710 no.

Note :
1. D07 is green area.
2. Water supply system for M03 is under construction.
3. Value in upper column shows total pipe length, and value in parenthesis shows cast iron pipe length.

(Source : DAWSSA JICA)

Summary of Distribution Pipes in DMA Medium Block

DMA Block	Particular	D80	D100	D125	D150	D200	D250	D300	D350	D400	D450	D500	D600	D700	D800	D1000	D1100	D1200	Total
E01	Total Length	0	87	0	40	0	0	0	118	0	0	120	0	0	0	0	0	0	365 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1 no.
E02	Total Length	0	219	0	100	0	0	0	298	0	0	304	0	0	0	0	0	0	921 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	3 no.
B01	Total Length	0	1,650	0	0	0	2,686	265	0	0	0	245	100	0	0	0	0	0	4,946 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12 no.
B02 . 1	Total Length	1,255	1,059	0	0	496	21	326	0	0	0	0	0	0	0	0	0	0	3,157 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	11	9	0	9	4	3	1	0	0	0	1	0	0	0	0	0	0	38 no.
B02 . 2	Total Length	1,191	1,005	0	0	470	19	309	0	0	0	0	0	0	0	0	0	0	2,994 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	11	8	0	9	3	2	1	0	0	0	1	0	0	0	0	0	0	35 no.
B03 . 1	Total Length	1,206	9,500	0	3,662	1,102	1,313	313	166	356	0	743	1,873	0	613	0	0	0	20,847 m
	Cast Iron Pipe	(0)	(421)	(0)	(86)	(0)	(740)	(0)	(0)	(147)	(0)	(154)	(593)	(0)	(0)	(0)	(0)	(0)	(2,141) m
	Valve	3	49	0	13	9	4	0	0	1	0	0	0	0	0	0	0	0	79 no.
B03 . 2	Total Length	953	7,506	0	2,894	871	1,038	247	131	281	0	587	1,480	0	484	0	0	0	16,472 m
	Cast Iron Pipe	(0)	(332)	(0)	(68)	(0)	(585)	(0)	(0)	(116)	(0)	(122)	(468)	(0)	(0)	(0)	(0)	(0)	(1,691) m
	Valve	2	39	0	10	7	3	0	0	1	0	0	0	0	0	0	0	0	62 no.
B03 . 3	Total Length	938	7,389	0	2,848	857	1,021	243	130	276	0	579	1,457	0	476	0	0	0	16,214 m
	Cast Iron Pipe	(0)	(327)	(0)	(66)	(0)	(576)	(0)	(0)	(114)	(0)	(120)	(461)	(0)	(0)	(0)	(0)	(0)	(1,664) m
	Valve	2	38	0	10	7	3	1	0	1	0	0	1	0	0	0	0	0	63 no.
B04	Total Length	1,835	14,451	0	5,570	1,677	1,997	475	253	541	0	1,131	2,849	0	931	0	0	0	31,710 m
	Cast Iron Pipe	(0)	(640)	(0)	(130)	(0)	(1,126)	(0)	(0)	(223)	(0)	(234)	(902)	(0)	(0)	(0)	(0)	(0)	(3,255) m
	Valve	4	75	0	20	13	6	0	0	1	0	0	1	0	0	0	0	0	120 no.
D01	Total Length	0	2,448	0	1,116	0	90	140	0	0	0	0	0	0	0	0	0	0	3,794 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	19	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	24 no.
D02	Total Length	0	20,729	0	1,166	2,500	785	160	0	0	0	0	0	0	0	0	0	0	25,340 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	202	0	6	6	3	0	0	0	0	0	0	0	0	0	0	0	217 no.
D03	Total Length	818	40,981	0	2,914	2,020	4,952	2,648	0	3,007	0	125	3,520	0	2,066	0	0	0	63,051 m
	Cast Iron Pipe	(0)	(350)	(0)	(200)	(0)	(2,012)	(0)	(0)	(0)	(0)	(0)	(1,886)	(0)	(0)	(0)	(0)	(0)	(4,448) m
	Valve	5	364	0	28	7	10	6	0	4	0	0	0	0	0	0	0	0	424 no.
D04 . 1	Total Length	11,899	17,696	0	4,688	2,312	6,714	899	0	1,065	134	1,898	2,844	0	2,689	324	211	556	53,929 m
	Cast Iron Pipe	(66)	(1,498)	(0)	(1,080)	(842)	(2,616)	(0)	(0)	(461)	(0)	(406)	(906)	(0)	(0)	(0)	(0)	(0)	(7,875) m
	Valve	120	96	0	17	13	21	1	0	4	0	4	2	0	1	0	0	0	279 no.
D04 . 2	Total Length	11,531	17,149	0	4,543	2,240	6,507	871	0	1,032	130	1,839	2,756	0	2,605	314	204	539	52,260 m
	Cast Iron Pipe	(64)	(1,452)	(0)	(1,047)	(816)	(2,535)	(0)	(0)	(447)	(0)	(393)	(878)	(0)	(0)	(0)	(0)	(0)	(7,632) m
	Valve	116	93	0	17	13	20	1	0	4	0	4	2	0	1	0	0	0	271 no.
D04 . 3	Total Length	10,428	15,506	0	4,107	2,026	5,884	788	0	933	117	1,664	2,492	0	2,356	284	185	487	47,257 m
	Cast Iron Pipe	(57)	(1,313)	(0)	(946)	(737)	(2,293)	(0)	(0)	(405)	(0)	(356)	(793)	(0)	(0)	(0)	(0)	(0)	(6,900) m
	Valve	106	84	0	15	12	18	2	0	4	0	3	2	0	0	1	0	1	248 no.

(Source : DAWSSA JICA)

Summary of Distribution Pipes in DMA Medium Block

DMA Block	Particular	D80	D100	D125	D150	D200	D250	D300	D350	D400	D450	D500	D600	D700	D800	D1000	D1100	D1200	Total
D05	Total Length	5,040	15,004	57	2,357	1,760	3,859	314	0	412	0	532	665	66	56	64	1,000	797	31,983 m
	Cast Iron Pipe	(50)	(668)	(18)	(523)	(659)	(859)	(0)	(0)	(274)	(0)	(270)	(297)	(0)	(0)	(0)	(0)	(0)	(3,618) m
	Valve	501	52	0	7	7	6	2	0	11	0	2	2	0	0	0	0	1	130 no.
D06 . 1	Total Length	1,187	3,533	14	555	414	816	74	0	97	0	125	156	16	13	15	0	61	7,076 m
	Cast Iron Pipe	(12)	(157)	(4)	(123)	(155)	(202)	(0)	(0)	(65)	(0)	(64)	(70)	(0)	(0)	(0)	(0)	(0)	(852) m
	Valve	12	12	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	29 no.
D06 . 2	Total Length	1,407	4,189	16	658	491	968	88	0	115	0	149	185	18	16	18	0	73	8,391 m
	Cast Iron Pipe	(14)	(187)	(5)	(146)	(184)	(240)	(0)	(0)	(77)	(0)	(76)	(83)	(0)	(0)	(0)	(0)	(0)	(1,012) m
	Valve	14	15	0	2	2	2	1	0	0	0	1	0	0	0	0	0	0	37 no.
D06 . 3	Total Length	1,676	4,990	19	784	585	1,153	104	0	137	0	177	221	22	19	21	0	87	9,995 m
	Cast Iron Pipe	(16)	(222)	(6)	(174)	(219)	(286)	(0)	(0)	(91)	(0)	(90)	(99)	(0)	(0)	(0)	(0)	(0)	(1,203) m
	Valve	17	18	0	2	2	2	1	0	0	0	1	0	0	0	0	0	0	43 no.
D06 . 4	Total Length	1,590	4,735	18	744	555	1,094	99	0	130	0	168	210	21	18	20	0	82	9,484 m
	Cast Iron Pipe	(16)	(211)	(6)	(165)	(208)	(271)	(0)	(0)	(87)	(0)	(85)	(94)	(0)	(0)	(0)	(0)	(0)	(1,143) m
	Valve	16	17	0	2	2	2	1	0	0	0	1	0	0	0	0	0	0	41 no.
D06 . 5	Total Length	1,871	5,573	21	875	655	1,287	117	0	154	0	198	247	24	20	25	0	97	11,164 m
	Cast Iron Pipe	(18)	(248)	(7)	(194)	(245)	(319)	(0)	(0)	(101)	(0)	(100)	(109)	(0)	(0)	(0)	(0)	(0)	(1,341) m
	Valve	18	19	0	3	2	2	0	0	1	0	0	2	0	0	0	0	0	47 no.
D07	Total Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 no.
D08 . 1	Total Length	448	1,676	0	349	351	140	52	0	60	0	124	84	0	55	0	0	0	3,339 m
	Cast Iron Pipe	(0)	(81)	(0)	(59)	(184)	(44)	(15)	(0)	(54)	(0)	(33)	(36)	(0)	(0)	(0)	(0)	(0)	(506) m
	Valve	4	7	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	15 no.
D08 . 2	Total Length	581	2,171	0	452	454	181	68	0	77	0	160	109	0	71	0	0	0	4,324 m
	Cast Iron Pipe	(0)	(104)	(0)	(77)	(238)	(57)	(19)	(0)	(70)	(0)	(42)	(47)	(0)	(0)	(0)	(0)	(0)	(654) m
	Valve	5	9	0	2	1	1	0	0	0	0	1	0	0	0	0	0	0	19 no.
D08 . 3	Total Length	723	2,704	0	562	566	225	85	0	96	0	200	136	0	88	0	0	0	5,385 m
	Cast Iron Pipe	(0)	(130)	(0)	(96)	(296)	(71)	(24)	(0)	(88)	(0)	(52)	(59)	(0)	(0)	(0)	(0)	(0)	(816) m
	Valve	6	11	0	3	1	2	0	0	0	0	1	1	0	0	0	0	0	25 no.
D08 . 4	Total Length	1,101	4,114	0	855	860	342	129	0	147	0	303	206	0	133	0	0	0	8,190 m
	Cast Iron Pipe	(0)	(198)	(0)	(145)	(450)	(109)	(37)	(0)	(134)	(0)	(80)	(89)	(0)	(0)	(0)	(0)	(0)	(1,242) m
	Valve	9	17	0	4	1	3	1	0	0	0	1	1	0	0	0	0	0	37 no.
D09 . 1	Total Length	2,226	8,321	0	1,731	1,740	694	260	0	297	0	615	418	0	271	0	0	0	16,573 m
	Cast Iron Pipe	(0)	(400)	(0)	(294)	(911)	(220)	(74)	(0)	(270)	(0)	(162)	(180)	(0)	(0)	(0)	(0)	(0)	(2,511) m
	Valve	19	35	0	9	3	5	1	0	0	0	2	2	0	0	0	0	0	76 no.
D09 . 2	Total Length	2,957	11,053	0	2,299	2,312	921	346	0	394	0	816	555	0	360	0	0	0	22,013 m
	Cast Iron Pipe	(0)	(531)	(0)	(390)	(1,210)	(292)	(99)	(0)	(359)	(0)	(215)	(240)	(0)	(0)	(0)	(0)	(0)	(3,336) m
	Valve	25	46	0	12	4	7	1	0	0	0	3	2	0	0	0	0	0	100 no.
D09 . 3	Total Length	3,240	12,109	0	2,518	2,533	1,009	379	0	432	0	894	608	0	395	0	0	0	24,117 m
	Cast Iron Pipe	(0)	(582)	(0)	(428)	(1,326)	(320)	(108)	(0)	(393)	(0)	(235)	(262)	(0)	(0)	(0)	(0)	(0)	(3,654) m
	Valve	27	51	0	13	5	7	1	0	0	0	3	2	0	0	0	0	0	109 no.
D09 . 4	Total Length	3,040	11,364	0	2,363	2,377	947	356	0	405	0	839	571	0	370	0	0	0	22,632 m
	Cast Iron Pipe	(0)	(546)	(0)	(401)	(1,244)	(300)	(101)	(0)	(369)	(0)	(221)	(246)	(0)	(0)	(0)	(0)	(0)	(3,428) m
	Valve	25	47	0	12	4	7	1	0	0	0	3	2	0	0	0	0	0	101 no.

(Source : DAWSSA JICA)

Summary of Distribution Pipes in DMA Medium Block

DMA Block	Particular	D80	D100	D125	D150	D200	D250	D300	D350	D400	D450	D500	D600	D700	D800	D1000	D1100	D1200	Total
D09 . 5	Total Length	2,177	8,134	0	1,692	1,701	678	255	0	290	0	601	409	0	265	0	0	0	16,202 m
	Cast Iron Pipe	(0)	(392)	(0)	(288)	(891)	(214)	(73)	(0)	(265)	(0)	(158)	(177)	(0)	(0)	(0)	(0)	(0)	(2,456) m
	Valve	18	34	0	9	4	5	0	0	1	0	1	2	0	0	0	0	0	74 no.
D10 . 1	Total Length	2,146	6,389	24	1,004	749	1,891	134	0	175	0	227	283	28	24	0	99	0	13,173 m
	Cast Iron Pipe	(21)	(284)	(8)	(223)	(281)	(366)	(0)	(0)	(117)	(0)	(115)	(126)	(0)	(0)	(0)	(0)	(0)	(1,541) m
	Valve	21	22	0	3	3	2	1	0	0	0	1	1	0	0	0	0	0	54 no.
D10 . 2	Total Length	8,452	25,166	96	3,953	2,951	7,451	527	0	691	0	893	1,115	110	94	0	391	0	51,890 m
	Cast Iron Pipe	(83)	(1,121)	(31)	(877)	(1,105)	(1,441)	(0)	(0)	(460)	(0)	(453)	(497)	(0)	(0)	(0)	(0)	(0)	(6,068) m
	Valve	84	88	0	12	11	9	3	0	2	0	3	3	0	0	0	0	0	215 no.
D10 . 3	Total Length	16,119	47,995	183	7,539	5,629	14,209	1,005	0	1,318	0	1,702	2,126	211	180	0	745	0	98,961 m
	Cast Iron Pipe	(159)	(2,137)	(58)	(1,672)	(2,108)	(2,749)	(0)	(0)	(877)	(0)	(865)	(949)	(0)	(0)	(0)	(0)	(0)	(11,574) m
	Valve	161	168	1	23	21	18	5	0	3	0	6	5	0	1	0	1	0	413 no.
D10 . 4	Total Length	5,940	17,686	68	2,778	2,074	5,236	370	0	486	0	627	783	78	66	0	275	0	36,467 m
	Cast Iron Pipe	(58)	(788)	(22)	(616)	(777)	(1,013)	(0)	(0)	(323)	(0)	(319)	(350)	(0)	(0)	(0)	(0)	(0)	(4,266) m
	Valve	59	62	0	9	8	7	2	0	1	0	2	2	0	0	0	0	0	152 no.
D10 . 5	Total Length	4,736	14,102	54	2,215	1,654	4,175	295	0	387	0	500	625	62	53	0	219	0	29,077 m
	Cast Iron Pipe	(47)	(628)	(17)	(491)	(619)	(808)	(0)	(0)	(258)	(0)	(254)	(279)	(0)	(0)	(0)	(0)	(0)	(3,401) m
	Valve	47	49	0	7	6	5	2	0	1	0	2	2	0	0	0	0	0	121 no.
D10 . 6	Total Length	2,329	6,934	26	1,089	813	2,053	145	0	190	0	246	307	30	26	0	108	0	14,296 m
	Cast Iron Pipe	(23)	(309)	(8)	(242)	(305)	(397)	(0)	(0)	(127)	(0)	(125)	(137)	(0)	(0)	(0)	(0)	(0)	(1,673) m
	Valve	23	24	0	3	3	3	1	0	0	0	1	1	0	0	0	0	0	59 no.
D10 . 7	Total Length	3,376	10,051	38	1,579	1,179	2,976	210	0	276	0	356	445	44	38	0	156	0	20,724 m
	Cast Iron Pipe	(33)	(448)	(12)	(350)	(441)	(576)	(0)	(0)	(184)	(0)	(181)	(199)	(0)	(0)	(0)	(0)	(0)	(2,424) m
	Valve	34	35	0	5	5	4	1	0	1	0	1	1	0	0	0	0	0	87 no.
D10 . 8	Total Length	3,480	10,362	40	1,628	1,215	3,068	217	0	285	0	368	459	45	39	0	161	0	21,367 m
	Cast Iron Pipe	(34)	(461)	(13)	(361)	(455)	(593)	(0)	(0)	(189)	(0)	(187)	(205)	(0)	(0)	(0)	(0)	(0)	(2,498) m
	Valve	35	36	0	5	5	4	1	0	1	0	1	1	0	0	0	0	0	89 no.
D10 . 9	Total Length	2,198	6,545	25	1,028	768	1,938	137	0	180	0	232	290	29	25	0	102	0	13,497 m
	Cast Iron Pipe	(22)	(291)	(8)	(228)	(287)	(375)	(0)	(0)	(120)	(0)	(118)	(129)	(0)	(0)	(0)	(0)	(0)	(1,578) m
	Valve	22	23	0	3	3	2	1	0	0	0	1	1	0	0	0	0	0	56 no.
D10 . 10	Total Length	4,004	11,921	46	1,873	1,398	3,529	249	0	327	0	423	528	52	45	0	185	0	24,580 m
	Cast Iron Pipe	(39)	(531)	(15)	(415)	(524)	(683)	(0)	(0)	(218)	(0)	(215)	(236)	(0)	(0)	(0)	(0)	(0)	(2,876) m
	Valve	40	42	0	6	5	4	1	0	1	0	1	1	0	0	0	0	0	101 no.
D10 . 11	Total Length	3,481	10,363	40	1,628	1,216	3,068	217	0	285	0	367	458	46	38	0	159	0	21,366 m
	Cast Iron Pipe	(35)	(461)	(12)	(362)	(456)	(593)	(0)	(0)	(187)	(0)	(186)	(204)	(0)	(0)	(0)	(0)	(0)	(2,496) m
	Valve	36	37	1	5	5	4	1	0	1	0	1	0	0	1	0	1	0	93 no.
D11	Total Length	1,500	6,500	0	2,600	0	0	0	0	0	0	0	0	0	0	0	0	0	10,600 m
	Cast Iron Pipe	(0)	(0)	(0)	(820)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(820) m
	Valve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 no.
M01 . 1	Total Length	1,499	4,327	0	3,764	503	1,677	0	0	500	29	3,672	544	0	0	0	0	0	16,515 m
	Cast Iron Pipe	(0)	(214)	(0)	(439)	(113)	(246)	(0)	(0)	(269)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1,281) m
	Valve	8	20	0	7	3	4	1	0	0	0	1	1	0	0	0	0	0	45 no.
M01 . 2	Total Length	2,087	6,027	0	5,243	700	2,335	0	0	696	41	5,115	758	0	0	0	0	0	23,002 m
	Cast Iron Pipe	(0)	(298)	(0)	(611)	(157)	(343)	(0)	(0)	(375)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(1,784) m
	Valve	11	28	0	10	4	5	1	0	0	0	1	1	0	0	0	0	0	61 no.

(Source : DAWSSA /JICA)

Summary of Distribution Pipes in DMA Medium Block

DMA Block	Particular	D80	D100	D125	D150	D200	D250	D300	D350	D400	D450	D500	D600	D700	D800	D1000	D1100	D1200	Total
M01 . 3	Total Length	5,058	14,602	0	12,703	1,697	5,659	0	0	1,686	100	12,393	1,838	0	0	0	0	0	55,736 m
	Cast Iron Pipe	(0)	(724)	(0)	(1,480)	(380)	(831)	(0)	(0)	(908)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4,323) m
	Valve	26	67	0	25	8	12	1	0	2	0	2	2	0	2	0	0	0	147 no.
M02 . 1	Total Length	4,338	1,708	0	2,299	1,864	2,560	732	0	929	0	0	196	0	0	0	0	0	14,626 m
	Cast Iron Pipe	(0)	(389)	(0)	(184)	(1,186)	(1,186)	(0)	(0)	(82)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(3,027) m
	Valve	24	19	0	7	8	4	0	0	0	0	0	1	0	0	0	0	0	63 no.
M02 . 2	Total Length	6,265	2,467	0	3,321	2,693	3,698	1,058	0	1,341	0	0	284	0	0	0	0	0	21,127 m
	Cast Iron Pipe	(0)	(561)	(0)	(266)	(1,714)	(1,714)	(0)	(0)	(118)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(4,373) m
	Valve	35	27	0	11	11	5	1	0	0	0	1	1	0	0	0	0	0	92 no.
M03	Total Length	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 m
	Cast Iron Pipe	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0) m
	Valve	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 no.
M04	Total Length	4,313	6,415	0	1,699	838	2,433	326	0	386	49	688	1,031	0	0	0	0	0	18,178 m
	Cast Iron Pipe	(24)	(543)	(0)	(391)	(305)	(948)	(0)	(0)	(167)	(0)	(147)	(328)	(0)	(0)	(0)	(0)	(0)	(2,853) m
	Valve	44	35	0	6	5	8	1	0	2	0	1	1	0	0	0	0	0	103 no.
Total	Total Length	152,639	466,605	785	110,385	61,866	115,297	16,032	1,096	20,872	600	42,945	36,221	902	14,998	1,085	4,200	2,779	1,049,307 m
	Cast Iron Pipe	(891)	(21,178)	(250)	(17,154)	(22,028)	(31,149)	(550)	(0)	(9,587)	(0)	(6,833)	(12,614)	(0)	(0)	(0)	(0)	(0)	(122,234) m
	Valve	1,355	2,261	2	390	249	247	47	0	38	0	61	49	0	6	1	2	2	4,710 no.

Note 1. D07 is green area.

2. Water supply system for M03 is under construction.

(Source : DAWSSA JIC)

DATA BOOK 6

COST DATA

6-a

ENGINEERS, TECHINICIANS AND LABORERS COST

as of July, 1997

No.	Descriptions	Unit Day/Month	Foreign Currency (US$)	Local Currency (SL)
A	**Civil Works**			
1	Civil engineer	Month		50,000
2	Assistant civil engineer	Month		30,000
3	Bridge engineer	Month		40,000
4	Assistant bridge engineer	Month		30,000
5	Road engineer	Month		40,000
6	Assistant road engineer	Month		30,000
7	Building engineer	Month		50,000
8	Assitant building engineer	Month		30,000
9	Surveyor	Month		30,000
10	Foreman for civil work	Day		1,000
11	Assistant foreman for civil work	Day		600
12	Foreman for bridge work	Day		900
13	Assistant foreman for bridge work	Day		500
14	Foreman for building work	Day		1,000
15	Assistant foreman for building werk	Day		600
16	Carpentor (Form work)	Day		600
17	Bar bender (Reinforced bar)	Day		600
18	Concrete worker	Day		500
19	Form worker	Day		500
20	Mason	Day		600
21	Plasterer	Day		600
22	Brik layer	Day		600
23	Plumber	Day		800
24	Rigger for steel fabrication for civil worker	Day		600
25	Skilled worker for civil work	Day		600
26	Unskilled worker for civil work	Day		500
27	Scaffolder	Day		500
28	Piling crew	Day		400
29	Steel fixer	Day		600
30	Blaster	Day		700
31	Powder man	Day		700
32	Miner	Day		1,000

6-a

ENGINEERS, TECHNICIANS AND LABORERS COST

as of July, 1997

No.	Descriptions	Unit Day/Month	Foreign Currency (US$)	Local Currency (SL)
B	**Mechanical Works**			
1	Mechanical engineer	Month		40,000
2	Assistant mechanical engineer	Month		30,000
3	Foreman for mechanical work	Day		1,000
4	Assistant foreman for mechanical work	Day		800
5	Rigger for mechanical work	Day		600
6	Pipe fitter	Day		800
7	Insulator	Day		700
8	Skilled worker for mechanical work including shaft alignment for rotary machine	Day		700
9	Skilled worker for mechanical work	Day		700
10	Unskilled worker for mechanical work	Day		500
11	Welder for pressure vessels or pipes	Day		700
12	Welder (normal)	Day		600
13	X-Ray testing engineer	Month		60,000
14	Painter	Day		600
C	**Electrical works**			
1	Electrical engineer	Month		40,000
2	Assistant electrical engineer	Month		30,000
3	Foreman for electrical work	Day		1,000
4	Assistant foreman for electrical work	Day		800
5	Electrician for ultra high voltage work (33kv)	Day		700
6	Electrician for high voltage work (6.6kv)	Day		700
7	Electrician for control board	Day		700
8	Electrician (normal)	Day		600
9	Skilled worker for electrical work	Day		600
10	Unskilled worker for electrical work	Day		500
D	**Common**			
1	Operator for construction machine	Day		600
2	Store keeper	Day		600
3	Security guard (Watch man)	Day		500

6-a

ENGINEERS, TECHNICIANS AND LABORERS COST

as of July, 1997

No.	Descriptions	Unit Day/Month	Foreign Currency (US$)	Local Currency (SL)
E	Office worker			
1	Translator (Arabic to English)	Day		1,000
2	Secretary	Day		800
3	Typist	Day		500
4	Car driver (micro bus)	Day		500
5	Car driver (normal car)	Day		500
6	Office boy	Day		400
7	Cook	Day		700
8	Maid	Day		400
9	House keeper	Day		400
F	Legal Adviser			
1	Fee for Lawyer	per year		600,000
2	Fee for Auditor	per year		600,000

REMARKS :

1) Normal working hours in a day : 8 hr
2) Normal working hours per week : 40 hr
3) Overtime charge up to 22:00 (%) : 50 %
4) Overtime charge from 22:00 to 8:00 (%) : 100 %
5) Holiday charge in day time (%) : 100 %
6) Holiday charge in night time (%) : 150 %
7) Holiday charge in over night (%) : 200 %

Note : All unit shall included overhead, social security, traffic expenses and accomodations fee.

6-b

UNIT PRICE OF MATERIALS FOR M & E WORKS

US$ 1.0 = SL 45 as of July, 1997

No.	Descriptions	Price at Site Unit	(SL) (1)	Allocation F.C.(%) (2)	L.C.(%) (3)	Unit Price F.C.($) (4)	L.C.(SL) (5)
A	**Galvanized Steel Pipes for Water Services**						
1	15 mm Dia. 2.8 t	m	64	87.6	12.4	1.2	8
2	20 mm Dia. 2.8 t	m	82	86.1	13.9	1.6	11
3	25 mm Dia. 3.2 t	m	130	86.0	14.0	2.5	18
4	32 mm Dia. 3.5 t	m	190	86.6	13.4	3.7	25
5	40 mm Dia. 3.5 t	m	204	86.1	13.9	3.9	28
6	50 mm Dia. 3.8 t	m	284	86.4	13.6	5.5	39
7	65 mm Dia. 4.2 t	m	332	85.8	14.2	6.3	47
8	80 mm Dia. 4.2 t	m	506	86.4	13.6	9.7	69
9	90 mm Dia. 4.5 t	m	590	86.3	13.7	11.3	81
10	100 mm Dia. 4.5 t	m	680	86.1	13.9	13.0	95
11	125 mm Dia. 4.5 t	m	730	85.7	14.3	13.9	104
12	150 mm Dia. 5.0 t	m	886	85.7	14.3	16.9	127
B	**Cross for Ductile Iron Pipes**						
1	75 /75 mm Dia.	pc.	2,590	77.3	22.7	44.5	588
2	100 /100 mm Dia.	pc.	2,820	77.1	22.9	48.3	646
3	150 /100 mm Dia.	pc.	4,547	77.5	22.5	78.3	1,023
4	150 /150 mm Dia.	pc.	5,550	77.2	22.8	95.2	1,265
5	200 /150 mm Dia.	pc.	6,806	77.2	22.8	116.8	1,552
6	200 /200 mm Dia.	pc.	8,785	77.2	22.8	150.7	2,003
7	250 /250 mm Dia.	pc.	32,840	77.5	22.5	565.6	7,389
8	300 /300 mm Dia.	pc.	43,750	77.5	22.5	753.5	9,844
9	400 /300 mm Dia.	pc.	53,150	77.5	22.5	915.4	11,959
10	400 /400 mm Dia.	pc.	68,475	77.4	22.6	1,177.8	15,475
11	500 /400 mm Dia.	pc.	83,802	77.5	22.5	1,443.3	18,855
12	600 /400 mm Dia.	pc.	100,398	77.5	22.5	1,729.1	22,590
C	**Tee for Ductile Iron Pipes**						
1	100 /75 mm Dia.	pc.	2,295	77.3	22.7	39.4	521
2	150 /100 mm Dia.	pc.	3,928	77.3	22.7	67.5	892
3	200 /150 mm Dia.	pc.	5,104	77.2	22.8	87.6	1,164
4	250 /200 mm Dia.	pc.	17,503	77.4	22.6	301.1	3,956
5	400 /300 mm Dia.	pc.	39,862	77.5	22.5	686.5	8,969
6	600 /500 mm Dia.	pc.	161,364	77.6	22.4	2,782.6	36,146

6-b

UNIT PRICE OF MATERIALS FOR M & E WORKS

No.	Descriptions	Price at Site		Allocation		Unit Price	
		Unit	(SL) (1)	F.C.(%) (2)	L.C.(%) (3)	F.C.($) (4)	L.C.(SL) (5)
D	**Reducer for Ductile Iron Pipes**						
1	150 /100 mm Dia.	pc.	1,988	69.4	30.6	30.7	608
2	200 /150 mm Dia.	pc.	2,910	77.3	22.7	50.0	661
3	250 /200 mm Dia.	pc.	6,785	77.5	22.5	116.9	1,527
4	300 /200 mm Dia.	pc.	8,908	77.5	22.5	153.4	2,004
5	400 /300 mm Dia.	pc.	33,713	77.9	22.1	583.6	7,451
6	500 /400 mm Dia.	pc.	27,732	77.7	22.3	478.8	6,184
7	600 /500 mm Dia.	pc.	56,611	77.8	22.2	978.7	12,568
8	800 /600 mm Dia.	pc.	65,055	77.6	22.4	1,121.8	14,572
E	**90° Bend for Ductile Iron Pipes**						
1	75 mm Dia.	pc.	1,312	77.3	22.7	22.5	298
2	100 mm Dia.	pc.	1,695	77.3	22.7	29.1	385
3	150 mm Dia.	pc.	2,845	77.2	22.8	48.8	649
4	200 mm Dia.	pc.	4,805	77.2	22.8	82.4	1,096
5	250 mm Dia.	pc.	11,086	77.5	22.5	190.9	2,494
6	300 mm Dia.	pc.	15,853	77.5	22.5	273.0	3,567
7	400 mm Dia.	pc.	40,273	77.5	22.5	693.6	9,061
8	500 mm Dia.	pc.	61,624	77.5	22.5	1,061.3	13,865
9	600 mm Dia.	pc.	95,040	77.5	22.5	1,636.8	21,384
10	800 mm Dia.	pc.	131,500	77.2	22.8	2,256.0	29,982
F	**Pump**						
1	**Submersible Pump** 15 kw	set	377,800	90.5	9.5	7,598.0	35,891
2	〃 22 kw	set	524,600	90.5	9.5	10,550.3	49,837
3	〃 45 kw	set	1,036,200	90.5	9.5	20,839.1	98,439
4	〃 55 kw	set	1,217,000	90.5	9.5	24,475.2	115,615
5	〃 75 kw	set	1,666,000	90.5	9.5	33,505.1	158,270
6	**Horizontal Pump** 11 kw	set	242,200	89.8	10.2	4,833.2	24,704
7	〃 15 kw	set	296,800	89.8	10.2	5,922.8	30,274
8	〃 22 kw	set	392,300	89.8	10.2	7,828.6	40,015
9	〃 30 kw	set	560,500	89.8	10.2	11,185.1	57,171
10	〃 37 kw	set	656,000	89.8	10.2	13,090.8	66,912
11	〃 45 kw	set	811,200	89.8	10.2	16,187.9	82,742
12	〃 55 kw	set	947,700	89.8	10.2	18,911.9	96,665
13	〃 75 kw	set	1,220,700	89.8	10.2	24,359.7	124,511

6-b

UNIT PRICE OF MATERIALS FOR M & E WORKS

No.	Descriptions	Price at Site		Allocation		Unit Price	
		Unit	(SL) (1)	F.C.(%) (2)	L.C.(%) (3)	F.C.($) (4)	L.C.(SL) (5)
14	〃 90 kw	set	1,425,400	89.8	10.2	28,444.6	145,391
15	〃 110 kw	set	1,698,400	89.8	10.2	33,892.5	173,237
16	〃 120 kw	set	1,834,900	89.8	10.2	36,616.4	187,160
17	〃 132 kw	set	1,998,700	89.8	10.2	39,885.2	203,867
18	〃 280 kw	set	4,221,700	89.8	10.2	84,246.4	430,613
G	**Water Meter**						
G1	**Liquid filled digital counter type**						
	13 mm Dia. * Made in Syria	pc.	1,200	0.0	100	0.0	1,200
G2	**Woltman type**						
	150 mm Dia.	pc.	23,773	90.7	9.3	479.2	2,211
	200 mm Dia.	pc.	23,786	91.4	8.6	483.1	2,046
	250 mm Dia.	pc.	30,981	91.3	8.7	628.6	2,695
	300 mm Dia.	pc.	83,185	91.5	8.5	1,691.4	7,071
	400 mm Dia.	pc.	111,695	91.5	8.5	2,271.1	9,494
	500 mm Dia.	pc.	145,020	91.5	8.5	2,948.7	12,327

REMARKS :

1) Unit price of materials shall be estimated by Supply and Delivery Cost at site.

2) Unit price should include Syrian Custom Duty.

3) Unit price should include Inland-transportation.

4) Unit price should include Loading and Unloading.

5) Unit price should include prevent to damage.

6-c

UNIT PRICE OF MATERIALS FOR CIVIL WORKS

US$ 1.0= SL 45 as of July, 1997

No.	DESCRIPTIONS	Price at Site		Allocation			
		Unit	(SL) (1)	F.C.(%) (2)	L.C.(%) (3)	F.C.($) (4)	L.C.(SL) (5)
1	Rubble stone Dia.200~300	m3	600	20.0	80.0	2.7	480
2	Crushed stone Dia.200~300	m3	600	20.0	80.0	2.7	480
3	Crushed stone for concrete	m3	650	20.0	80.0	2.9	520
4	Gravel Aggregate Dia.200~300	m3	500	20.0	80.0	2.2	400
5	Sand for Back filling	m3	600	20.0	80.0	2.7	480
6	Sand / Fine aggregate	m3	800	20.0	80.0	3.6	640
7	Structural steel (angle, channel)	ton	50,000	30.0	70.0	333.3	35,000
8	Structural steel (I , H-Beam)	ton	50,000	30.0	70.0	333.3	35,000
9	Structural steel plate	ton	55,000	27.0	73.0	330.0	40,150
10	Grating 400 kg/m2, Galvanized	m2	4,000	30.0	70.0	26.7	2,800
11	Phthalic resin paint	litter or kg	1,000	50.0	50.0	11.1	500
12	Vinyl paint	litter or kg	1,200	50.0	50.0	13.3	600
13	Epoxy resin paint	litter or kg	1,400	50.0	50.0	15.6	700
14	Tar epoxy resin paint	litter or kg	1,600	50.0	50.0	17.8	800

REMARKS :

1) **Unit price of materials shall be estimated by Supply and Delivery Cost at site.**
2) **Unit price should include Syrian Custom Duty.**
3) **Unit price should include Inland-transportation.**
4) **Unit price should include Loading and Unloading.**
5) **Unit price should include prevent to damage.**

COST OF CONSTRUCTION EQUIPMENT

as of July, 1997

US$ 1.0=SL 45

No.	Descriptions		Unit	F.C.($) (1)	L.C.(SL) (2)	Total (SL) (1)+(2)=(3)
	Equipment	Capacity				
1	Back hoe	1.0 m3	hour	20.0	1,000	1,900
2	Back hoe	0.7 m3	hour	20.0	1,000	1,900
3	Back hoe	0.4 m3	hour	20.0	1,000	1,900
4	Back hoe with air breaker	1,300 kg	hour	30.0	1,500	2,850
5	Bulldozer with ripper	32 ton	hour	50.0	2,500	4,750
6	Bulldozer	21 ton	hour	40.0	2,000	3,800
7	Bulldozer	15 ton	hour	35.0	1,750	3,325
8	Bulldozer	11 ton	hour	30.0	1,500	2,850
9	Dump truck	15 ton	hour	30.0	1,500	2,850
10	Dump truck	11 ton	hour	25.0	1,500	2,625
11	Dump truck	7 ton	hour	20.0	1,000	1,900
12	Dump truck	4 ton	hour	15.0	750	1,425
13	Trailer	30 ton	hour	20.0	1,000	1,900
14	Trailer	20 ton	hour	17.0	850	1,615
15	Trailer	15 ton	hour	15.0	750	1,425
16	Flat bed truck	11 ton	hour	20.0	1,000	1,900
17	Flat bed truck	8 ton	hour	17.0	850	1,615
18	Flat bed truck	4 ton	hour	15.0	750	1,425
19	Cargo truck with crane	8 ton	hour	20.0	1,000	1,900
20	Cargo truck with crane	4 ton	hour	15.0	750	1,425
21	Fork lift	5 ton	hour	10.0	500	950
22	Fork lift	3 ton	hour	8.0	400	760
23	Truck crane	160 ton	hour	60.0	7,000	9,700
24	Truck crane	100 ton	hour	50.0	6,000	8,250
25	Truck crane	60 ton	hour	40.0	5,000	6,800
26	Truck crane	35 ton	hour	30.0	4,000	5,350
27	Truck crane	15 ton	hour	20.0	3,000	3,900
28	Crawler crane	40 ton	hour	30.0	4,000	5,350
29	Crawler crane	35 ton	hour	25.0	3,500	4,625
30	Crawler type Tractor shovel	1.8 m3	hour	50.0	2,500	4,750
31	Crawler type Tractor shovel	D-8, ripper attache	hour	50.0	2,500	4,750
32	Crawler type Tractor shovel	1.2 m3	hour	30.0	1,500	2,850
33	Wheel type Tractor shovel	1.8 m3	hour	55.0	3,000	5,475
34	Wheel type Tractor shovel	1.2 m3	hour	40.0	2,500	4,300

COST OF CONSTRUCTION EQUIPMENT

No.	Descriptions		Unit	F.C.($) (1)	L.C.(SL) (2)	Total (SL) (3)
	Equipment	Capacity				
35	Vibration roller	2.5 ton	hour	2.0	400	490
36	Vibration roller	4 ton	hour	3.0	600	735
37	Vibration roller	7~8 ton	hour	6.0	1,200	1,470
38	Vibration roller	11 ton	hour	8.0	1,600	1,960
39	Tire roller	8~ 20 ton	hour	8.0	1,600	1,960
40	Macadam roller	10~ 20 ton	hour	10.0	2,000	2,450
41	Plate compactor	80~100 ton	hour	20.0	4,000	4,900
42	Pad-foot roller	10~ 20 ton	hour	10.0	2,000	2,450
43	Motor grader	2.4~3.1 ton	hour	12.0	2,400	2,940
44	Concrete pump truck	65 m3/h	hour	8.0	1,600	1,960
45	Concrete pump truck	40 m3/h	hour	6.0	1,400	1,670
46	Concrete mixer car	4.5 m3	hour	8.0	1,600	1,960
47	Concrete mixer car	1.6 m3	hour	6.0	1,400	1,670
48	Concrete mixer	0.3 m3	hour	5.0	1,200	1,425
49	Portable concrete mixer					0
50	Mortar mixer	2.5~3.5 m3	hour	6.0	1,200	1,470
51	Motor type Concrete vibrator	100~200 V	hour	2.0	400	490
52	High frequency type Concrete vibrator	30~60 mm Dia.	hour	3.0	600	735
53	Re- bar bender	Dia. up to 30 mm	hour	2.0	400	490
54	Air compressor	1.5~3.7 m3/min	hour	2.0	400	490
55	Air compressor	5.5~6.0 m3/min	hour	3.0	500	635
56	Air compressor	9.0 m3/min	hour	4.0	600	780
57	Crawler drill Bit dia 60 mm	6.0 ton	hour	2.0	400	490
58	Crawler drill Bit dia 60 mm	8.0 ton	hour	3.0	500	635
59	Crawler drill Bit dia 60 mm	10.0 ton	hour	4.0	600	780
60	Fuel lorry	6 kl	hour	15.0	750	1,425
61	Ffuel lorry	2 kl	hour	10.0	500	950
62	Water lorry	6 kl	hour	10.0	500	950
63	Passenger car	2,000 cc	hour	10.0	500	950
64	Passenger car	1,600 cc	hour	8.0	400	760
65	Micro bus	20 Passengers	hour	10.0	500	950
66	Micro bus	10 Passengers	hour	8.0	400	760
67	4WD car	Land cruiser type	hour	12.0	600	1,140
68	Pick up truck	1 ton	hour	8.0	400	760

6-d

COST OF CONSTRUCTION EQUIPMENT

No.	Descriptions		Unit	F.C.($) (1)	L.C.(SL) (2)	Total (SL) (3)
	Equipment	Capacity				
69	Engine generator	400 KVA	hour	10.0	500	950
70	Engine generator	220 KVA	hour	8.0	400	760
71	Engine generator	125 KVA	hour	6.0	300	570
72	Engine generator	60 KVA	hour	5.0	200	425
73	Engine generator	25 KVA	hour	4.0	200	380
74	Engine generator	10 KVA	hour	3.0	150	285
75	Engine welder	330~350 A	hour	10.0	500	950
76	Engine welder	270~280 A	hour	8.0	400	760
77	Engine welder	230~250 A	hour	6.0	300	570
78	Concrete cutter/Blade dia.	300 mm Dia.	hour	2.0	400	490
79	Submersible pump 100 mm x 15 m	3.7 KW	hour	3.0	150	285
80	Submersible pump 75 mm x 15 m	2.2 KW	hour	2.0	100	190
81	Submersible pump 50 mm x 15 m	1.5 KW	hour	1.5	100	168
82	Concrete bucket	1.0 m3	hour	2.0	400	490
83	Concrete bucket	0.5 m3	hour	1.0	300	345
84	Concrete hand breaker	30 kg	hour	—	500	500
85	Concrete hand breaker	20 kg	hour	—	400	400
86	Pick hammer	8 kg	hour	—	300	300
87	Elec.Pipe thread machine	15~80 mm Dia.	hour	2.0	400	490
88	High-speed Cutting machine, Cutting blade	405 mm Dia.	hour	2.0	400	0 490
89	Elec.Grinder/Grinding stone	150 mm Dia.	hour	1.0	300	345
90	Elec.Grinder/Grinding stone	100 mm Dia.	hour	1.0	200	245
91	Drill	10 mm Dia.	hour	1.0	200	245
92	Chain block	15 ton	hour	20.0	4,000	4,900
93	Chain block	10 ton	hour	15.0	3,000	3,675
94	Chain block	5 ton	hour	8.0	2,000	2,360
95	Chain block	3 ton	hour	6.0	2,000	2,270
96	Chain block	2 ton	hour	5.0	1,000	1,225

REMARKS :

1) **Unit price should include overhead cost.**
2) **Unit price should include operator's fees.**
3) **Unit price should include fuel, lubricant.**
4) **Unit price for passenger car should not include fuel, lubricant.**

UNIT CONSTRUCTION COST

US($) = SL 45 as of July, 1997

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion		Local Portion	
				Ratio (%)	Cost ($)	Ratio (%)	Cost (SL)
1	**Civil Works**						
1-1	**Excavation and Backfilling etc.,**						
1	Excavation, common including coffering	m3	800	30	5.3	70	560
2	Excavation, rock including coffering	m3	1,200	50	13.3	50	600
3	Excavation, common	m3	600	20	2.7	80	480
4	Excavation, rock	m3	1,000	40	8.9	60	600
5	Embankment	m3	400	30	2.7	70	280
6	Backfilling	m3	600	30	4.0	70	420
7	Excess soil treat (Soil disporsal)	m3	500	30	3.3	70	350
8	Gravel laying	m3	800	30	5.3	70	560
9	Steel sheet piling	m2	15,000	50	166.7	50	7,500
10	Concrete pile , 400x400, L = 20 m	m	5,000	50	55.6	50	2,500
11	Crusher run	m3	800	30	5.3	70	560
12	Cobble stone	m3	1,000	30	6.7	70	700
13	Scaffolding	m2	300	70	4.7	30	90
14	Shoring	m2	300	70	4.7	30	90
15	Steel grating	m2	3,000	90	60.0	10	300
16	Stainless steel pipe handrail	m	3,000	90	60.0	10	300
17	Ladder	m	1,500	50	16.7	50	750
1-2	**Concrete Works**						
	Level concrete	m3	5,000	20	22.2	80	4,000
1	Concrete, with wood form 160kg/cm2						
	Reinforced concrete						
2	Concrete,with form& re-bar 210kg/cm2	m3	7,500	20	33.3	80	6,000
3	Concrete,with form& re-bar 240kg/cm2	m3	8,500	20	37.8	80	6,800
4	Concrete,with form& re-bar 300kg/cm2	m3	9,500	20	42.2	80	7,600
5	Concrete,with form& re-bar 350kg/cm2	m3	11,000	20	48.9	80	8,800
1-3	**Road Reinstatement Cost**						
1	Pipe 75 - 200 mm Dia. Area per unit length / (m2/m)	m	500	20	2.2	80	400
2	Pipe 250 - 350 mm Dia. Area per unit length / (m2/m)	m	700	20	3.1	80	560
3	Pipe 400 - 600 mm Dia. Area per unit length / (m2/m)	m	1,000	20	4.4	80	800
4	Pipe 700 - 900 mm Dia. Area per unit length / (m2/m)	m	1,100	20	4.9	80	880
5	Pipe 1000-1200 mm Dia. Area per unit length / (m2/m)	m	1,250	20	5.6	80	1000
6	Pipe 1350-1600 mm Dia. Area per unit length / (m2/m)	m	1,500	20	6.7	80	1200
7	Pipe 1800 Area per unit length / (m2/m)	m	1,650	20	7.3	80	1320

UNIT CONSTRUCTION COST

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion		Local Portion	
				Ratio (%)	Cost ($)	Ratio (%)	Cost (SL)
2	Pipe and Fittings						
2-1	Supply&Delivery Cost (included CIF Syrian Port,Custom Duty,Inland Transportation and						
1)	Ductile Iron Pipe						Fitting)
1	75 mm Dia. Nominal size	m	857	76.6	14.6	23.4	201
2	100 mm Dia. Nominal size	m	917	75.8	15.4	24.2	222
3	150 mm Dia. Nominal size	m	1,569	76.1	26.5	23.9	375
4	200 mm Dia. Nominal size	m	1,917	75.9	32.3	24.1	462
5	250 mm Dia. Nominal size	m	2,438	75.9	41.1	24.1	588
6	300 mm Dia. Nominal size	m	2,982	75.8	50.2	24.2	722
7	400 mm Dia. Nominal size	m	4,358	75.6	73.2	24.4	1,063
8	500 mm Dia. Nominal size	m	5,953	75.6	100.0	24.4	1,453
9	600 mm Dia. Nominal size	m	7,759	75.6	130.4	24.4	1,893
10	800 mm Dia. Nominal size	m	12,167	75.6	204.4	24.4	2,969
2)	Polyethylene Pipes for Water Works						
1	13 mm Dia.	m	20	0	0	100	20
2	20 mm Dia.	m	23	0	0	100	23
3	25 mm Dia.	m	35	0	0	100	35
4	30 mm Dia.	m	56	0	0	100	56
5	40 mm Dia.	m	87	0	0	100	87
6	50 mm Dia.	m	130	0	0	100	130
2-2	Laying Cost (included Laborer cost,Excavation,Backfilling,Civil materials and Pipe						
1)	Ductile Iron Pipe for Transmission pipe lines						laying)
1	75 mm Dia. Nominal size	m	290	0	0	100	290
2	100 mm Dia. Nominal size	m	310	0	0	100	310
3	150 mm Dia. Nominal size	m	390	0	0	100	390
4	200 mm Dia. Nominal size	m	460	0	0	100	460
5	250 mm Dia. Nominal size	m	510	0	0	100	510
6	300 mm Dia. Nominal size	m	570	0	0	100	570
7	350 mm Dia. Nominal size	m	650	0	0	100	650
8	400 mm Dia. Nominal size	m	700	0	0	100	700
9	450 mm Dia. Nominal size	m	760	0	0	100	760
10	500 mm Dia. Nominal size	m	840	0	0	100	840
11	600 mm Dia. Nominal size	m	970	0	0	100	970
12	700 mm Dia. Nominal size	m	1,140	0	0	100	1,140
13	800 mm Dia. Nominal size	m	1,320	0	0	100	1,320
14	900 mm Dia. Nominal size	m	1,520	0	0	100	1,520
15	1000 mm Dia. Nominal size	m	1,750	0	0	100	1,750
16	1100 mm Dia. Nominal size	m	1,980	0	0	100	1,980
17	1200 mm Dia. Nominal size	m	2,230	0	0	100	2,230
18	1350 mm Dia. Nominal size	m	2,780	0	0	100	2,780
19	1500 mm Dia. Nominal size	m	3,150	0	0	100	3,150

UNIT CONSTRUCTION COST

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion Ratio (%)	Foreign Portion Cost ($)	Local Portion Ratio (%)	Local Portion Cost (SL)
20	1600 mm Dia. Nominal size	m	3,460	0	0	100	3,460
2)	**Ductile Iron Pipe for Distribution pipe lines**						
1	75 mm Dia. Nominal size	m	406	0	0	100	406
2	100 mm Dia. Nominal size	m	434	0	0	100	434
3	150 mm Dia. Nominal size	m	546	0	0	100	546
4	200 mm Dia. Nominal size	m	644	0	0	100	644
5	250 mm Dia. Nominal size	m	714	0	0	100	714
6	300 mm Dia. Nominal size	m	798	0	0	100	798
7	350 mm Dia. Nominal size	m	910	0	0	100	910
8	400 mm Dia. Nominal size	m	980	0	0	100	980
9	450 mm Dia. Nominal size	m	1,064	0	0	100	1,064
10	500 mm Dia. Nominal size	m	1,176	0	0	100	1,176
11	600 mm Dia. Nominal size	m	1,358	0	0	100	1,358
12	700 mm Dia. Nominal size	m	1,596	0	0	100	1,596
13	800 mm Dia. Nominal size	m	1,848	0	0	100	1,848
14	900 mm Dia. Nominal size	m	2,128	0	0	100	2,128
15	1000 mm Dia. Nominal size	m	2,450	0	0	100	2,450
16	1100 mm Dia. Nominal size	m	2,772	0	0	100	2,772
17	1200 mm Dia. Nominal size	m	3,122	0	0	100	3,122
18	1350 mm Dia. Nominal size	m	3,892	0	0	100	3,892
19	1500 mm Dia. Nominal size	m	4,410	0	0	100	4,410
20	1600 mm Dia. Nominal size	m	4,844	0	0	100	4,844
3)	**Polyethylene Pipes for Water Works**						
1	13 mm Dia.	m	209	0	0	100	209
2	20 mm Dia.	m	213	0	0	100	213
3	25 mm Dia.	m	222	0	0	100	222
4	30 mm Dia.	m	296	0	0	100	296
5	40 mm Dia.	m	318	0	0	100	318
6	50 mm Dia.	m	335	0	0	100	335
2-3	**Removal Cost**						
1)	**Ductile Iron Pipe for Transmission pipe lines**						
1	75 mm Dia. Nominal size	m	260	0	0	100	260
2	100 mm Dia. Nominal size	m	270	0	0	100	270
3	150 mm Dia. Nominal size	m	330	0	0	100	330
4	200 mm Dia. Nominal size	m	380	0	0	100	380
5	250 mm Dia. Nominal size	m	410	0	0	100	410
6	300 mm Dia. Nominal size	m	455	0	0	100	455
7	350 mm Dia. Nominal size	m	525	0	0	100	525
8	400 mm Dia. Nominal size	m	565	0	0	100	565
9	450 mm Dia. Nominal size	m	615	0	0	100	615
10	500 mm Dia. Nominal size	m	675	0	0	100	675

UNIT CONSTRUCTION COST

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion Ratio (%)	Foreign Portion Cost ($)	Local Portion Ratio (%)	Local Portion Cost (SL)
11	600 mm Dia. Nominal size	m	785	0	0	100	785
12	700 mm Dia. Nominal size	m	910	0	0	100	910
13	800 mm Dia. Nominal size	m	1,050	0	0	100	1,050
14	900 mm Dia. Nominal size	m	1,200	0	0	100	1,200
15	1000 mm Dia. Nominal size	m	1,370	0	0	100	1,370
16	1100 mm Dia. Nominal size	m	1,540	0	0	100	1,540
17	1200 mm Dia. Nominal size	m	1,730	0	0	100	1,730
18	1350 mm Dia. Nominal size	m	2,020	0	0	100	2,020
19	1500 mm Dia. Nominal size	m	2,385	0	0	100	2,385
20	1600 mm Dia. Nominal size	m	2,610	0	0	100	2,610
2)	**Ductile Iron Pipe for Distribution pipe lines**						
1	75 mm Dia. Nominal size	m	364	0	0	100	364
2	100 mm Dia. Nominal size	m	378	0	0	100	378
3	150 mm Dia. Nominal size	m	462	0	0	100	462
4	200 mm Dia. Nominal size	m	532	0	0	100	532
5	250 mm Dia. Nominal size	m	574	0	0	100	574
6	300 mm Dia. Nominal size	m	637	0	0	100	637
7	350 mm Dia. Nominal size	m	735	0	0	100	735
8	400 mm Dia. Nominal size	m	791	0	0	100	791
9	450 mm Dia. Nominal size	m	861	0	0	100	861
10	500 mm Dia. Nominal size	m	945	0	0	100	945
11	600 mm Dia. Nominal size	m	1,099	0	0	100	1,099
12	700 mm Dia. Nominal size	m	1,274	0	0	100	1,274
13	800 mm Dia. Nominal size	m	1,470	0	0	100	1,470
14	900 mm Dia. Nominal size	m	1,680	0	0	100	1,680
15	1000 mm Dia. Nominal size	m	1,918	0	0	100	1,918
16	1100 mm Dia. Nominal size	m	2,156	0	0	100	2,156
17	1200 mm Dia. Nominal size	m	2,422	0	0	100	2,422
18	1350 mm Dia. Nominal size	m	2,828	0	0	100	2,828
19	1500 mm Dia. Nominal size	m	3,339	0	0	100	3,339
20	1600 mm Dia. Nominal size	m	3,654	0	0	100	3,654
3)	**Polyethylene Pipes for Water Works**						
1	13 mm Dia.	m	209	0	0	100	209
2	20 mm Dia.	m	213	0	0	100	213
3	25 mm Dia.	m	222	0	0	100	222
4	30 mm Dia.	m	296	0	0	100	296
5	40 mm Dia.	m	318	0	0	100	318
6	50 mm Dia.	m	335	0	0	100	335

UNIT CONSTRUCTION COST

US$1.0=SL 45 as of July, 1997

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion Ratio (%)	Foreign Portion Cost ($)	Local Portion Ratio (%)	Local Portion Cost (SL)
3	Valves etc.,						
3-1	Supply&Delivery Cost (included CIF Syrian Port,Custom Duty,Inland Transportation and						
1)	Butterfly Valves for Water Works						Fitting)
1	200 mm Dia. Nominal size	set	42,280	82.5	775.1	17.5	7,399
2	250 mm Dia. Nominal size	set	48,777	82.5	894.2	17.5	8,536
3	300 mm Dia. Nominal size	set	59,700	82.5	1094.5	17.5	10,448
4	400 mm Dia. Nominal size	set	79,095	82.4	1448.3	17.6	13,921
5	500 mm Dia. Nominal size	set	109,036	82.4	1996.6	17.6	19,190
6	600 mm Dia. Nominal size	set	150,790	82.4	2761.1	17.6	26,539
7	800 mm Dia. Nominal size	set	275,730	82.4	5048.9	17.6	48,528
2)	Tap (Faucets 7.5 K)						
1	13 mm Dia. Nominal size	set	144	75.8	2.4	24.2	35
2	20 mm Dia. Nominal size	set	172	75.9	2.9	24.2	42
3	25 mm Dia. Nominal size	set	200	76.1	3.4	24.2	48
3)	Sluice Valves for Water Works						
1	75 mm Dia. Nominal size	set	6,819	82.3	124.7	17.7	1,207
2	100 mm Dia. Nominal size	set	7,462	82.2	136.3	17.8	1,328
3	150 mm Dia. Nominal size	set	12,549	82.3	229.5	17.7	2,221
4	200 mm Dia. Nominal size	set	20,118	82.2	367.5	17.8	3,581
5	250 mm Dia. Nominal size	set	30,265	82.2	552.8	17.8	5,387
6	300 mm Dia. Nominal size	set	43,717	82.2	798.6	17.8	7,782
4)	Air Vent Valves for Water Works						
1	75 mm Dia. Nominal size	set	26,383	82.4	483.1	17.6	4,643
2	100 mm Dia. Nominal size	set	31,668	82.4	579.9	17.6	5,574
3	150 mm Dia. Nominal size	set	55,950	82.4	1,024.5	17.6	9,847
4	200 mm Dia. Nominal size	set	116,058	82.5	2,127.7	17.5	20,310
3-2	Installation Cost						
1)	Butterfly Valves for Water Works						
1	400 mm Dia. Nominal size	set	2,000	0	0	100	2,000
2	500 mm Dia. Nominal size	set	2,500	0	0	100	2,500
3	600 mm Dia. Nominal size	set	2,700	0	0	100	2,700
4	700 mm Dia. Nominal size	set	2,800	0	0	100	2,800
5	800 mm Dia. Nominal size	set	3,000	0	0	100	3,000
6	900 mm Dia. Nominal size	set	3,500	0	0	100	3,500
7	1000 mm Dia. Nominal size	set	4,000	0	0	100	4,000
8	1100 mm Dia. Nominal size	set	4,500	0	0	100	4,500
9	1200 mm Dia. Nominal size	set	5,000	0	0	100	5,000

UNIT CONSTRUCTION COST

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion Ratio (%)	Foreign Portion Cost ($)	Local Portion Ratio (%)	Local Portion Cost (SL)
2)	**Faucets**						
1	13 mm Dia. Nominal size	set	40	0	0	100	40
2	20 mm Dia. Nominal size	set	50	0	0	100	50
3	25 mm Dia. Nominal size	set	60	0	0	100	60
3)	**Sluice Valves for Water Works**						
1	150 mm Dia. Nominal size	set	2,000	0	0	100	2,000
2	200 mm Dia. Nominal size	set	2,500	0	0	100	2,500
3	250 mm Dia. Nominal size	set	2,700	0	0	100	2,700
4	300 mm Dia. Nominal size	set	3,000	0	0	100	3,000
4)	**Air Vent Valves for Water Works**						
1	100 mm Dia. Nominal size	set	100	0	0	100	100
2	150 mm Dia. Nominal size	set	200	0	0	100	200
3	200 mm Dia. Nominal size	set	300	0	0	100	300
3-3	**Removal Cost**						
1)	**Butterfly Valves for Water Works**						
1	200 mm Dia. Nominal size	set	330	0	0	100	330
2	250 mm Dia. Nominal size	set	480	0	0	100	480
3	300 mm Dia. Nominal size	set	510	0	0	100	510
4	400 mm Dia. Nominal size	set	720	0	0	100	720
5	500 mm Dia. Nominal size	set	1,000	0	0	100	1,000
6	600 mm Dia. Nominal size	set	1,120	0	0	100	1,120
7	800 mm Dia. Nominal size	set	1,760	0	0	100	1,760
2)	**Faucets**						
1	13 mm Dia. Nominal size	set	30	0	0	100	30
2	20 mm Dia. Nominal size	set	40	0	0	100	40
3	25 mm Dia. Nominal size	set	50	0	0	100	50
3)	**Sluice Valves for Water Works**						
1	75 mm Dia. Nominal size	set	160	0	0	100	160
2	100 mm Dia. Nominal size	set	300	0	0	100	300
3	150 mm Dia. Nominal size	set	336	0	0	100	336
4	200 mm Dia. Nominal size	set	378	0	0	100	378
5	250 mm Dia. Nominal size	set	550	0	0	100	550
6	300 mm Dia. Nominal size	set	630	0	0	100	630
7	400 mm Dia. Nominal size	set	978	0	0	100	978
8	500 mm Dia. Nominal size	set	1,311	0	0	100	1,311
9	600 mm Dia. Nominal size	set	1,642	0	0	100	1,642

UNIT CONSTRUCTION COST

No.	Construction Items	Unit	Unit Cost (SL)	Foreign Portion Ratio (%)	Foreign Portion Cost ($)	Local Portion Ratio (%)	Local Portion Cost (SL)
4)	**Air Vent Valves for Water Works**						
1	75 mm Dia. Nominal size	set	130	0	0	100	130
2	100 mm Dia. Nominal size	set	218	0	0	100	218
3	150 mm Dia. Nominal size	set	305	0	0	100	305
4	200 mm Dia. Nominal size	set	392	0	0	100	392
4	**House Connection (with Water Meter)**						
	(1) Material Cost		**4,100**		**22.0**		**3,108**
	Polyethylene pipe 10 m	set	200	0	0.0	100	200
	Galvanized steel pipe 10 m	set	640	0	0.0	100	640
	Meter box	set	800	0	0.0	100	800
	Water meter (13 mm)	set	1,200	0	0.0	100	1,200
	Stop valve	set	1,200	78.7	21.0	21.3	256
	Tapping collar	set	60	78.7	1.0	21.3	13
	(2) Installation Cost	set	**1,360**	**0**	**0.0**	**100**	**1,360**
	Total		**5,460**		**22.0**		**4,468**

REMARKS :

1) **Unit cost should include Engineer, Technician and Labor cost.**
2) **Unit cost should include Materials price.**
3) **Unit cost should include Construction Equipment.**
4) **Unit cost should include Contractor's Overhead and Profits.**

6-f

Local Registered Companies

Local registered companies should be registered / high-class rank, by DAWWSA. Under the provisions of the contractors law, all Syrian contractors are legally to be classified in accordance with the government works by law.

The classifications is from grade First to grade Third with grade First the highest. as follows;

as of July, 1997

	Descriptions	Local Registered Companies	Classifications
1	Supply and Execution of	1. OMER SHANBUOR	Third
	Pipes and Metals works	2. HOJA & ZARABANI	First
		3. KHALED BARAKAT	Second
		4. ANTRANIC BOGOSYAN	First
2	Pump Installations	1. RIMA COMPANY	First
		2. GADIR COMPANY	Second
		3. ANTRANIC BOGOSYAN	First
3	Mechanical & Electrical	1. KHALED BARAKAT	Second
	Installations	2. MOUFID TAMIM	Third
		3. HAMZE FARRA	Third
4	Pipe Laying	1. SAFFA COMPANY	First
	for Transmission Lines	2. GENERAL COMPANY RIMA	First
		for Irrigation and Water supply	
		3. HOJA & ZARABANI	First
		4. RAMIZ RESLAN	First
		5. M.C.E	First
5	Laying of House Connections	1. SAMIR AL AHDAB	Second
		2. GENERAL COMPANY RIMA	First
		for Irrigation and Water supply	
		3. M.C.E.	First
		4. BASSAM ZUHAILI	Third

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	Descriptions	Local Registered Companies	Classifications
6	Road Constructions	1. GENERAL COMPANY RIMA	First
		for Irrigation and Water supply	
		2. MOUHAMAD MAHMOUD	Third
		RAMADAN	
		3. RAMIZ RESLAN	First
		4. BASSAM ZUHAILI	Third
		5. KASSOUN COMPANY	First
		6. FOUAD TAKLA COMPANY	First
7	Fitting Castings	1. GORG MASMANYAN	Second
		2. HAGOB ARWSHYAN	Third
		3. ABED AL MAJED YASSIN	Second
8	Electric Board works	1. RAFFI HAWAKIMYAN	Second
		2. MOUFID TAMIM	Third
		3. MOUHAMAD ABED	Third
		AL- KADIR BABIL	

* M.C.E. : Military Construction Establishment

6-g

Tax and Duty in Syria

As of July, 1997

Descriptions	Custom Duty (%)	Under Loan	Under Own Fund
1. Import Materials		by DAWSSA (Exchange Rate SL35 / US$)	by DAWSSA (Exchange Rate SL35 / US$)
- Steel pipe, elbow, joint	13		
- Valve,	21		
- Water meter	9		
- Flow meter	9		
- Ductile cast iron pipe,	28		
- Pump sets	8		
- Generator sets,	8		
2. Stamp Duty - 1.248% Contract amount		by DAWSSA (Exchange Rate SL35 / US$)	by Contractor *1 (Pay by US$)
3. Tax for Installation Work *3 -18% of such items amount (both L.C. and F.C.)		by DAWSSA (Exchange Rate SL35 / US$)	by Contractor *2 (Pay by US$)

Note :

1) *1 marked is foreign contractor
2) *2 marked is local and foreign contractor
3) *3 marked is " General services tax for manpower supply and administration work"
4) L.C. is local currency portion, F.C. is foreign currency portion

6-h

INSURANCE

as of July, 1997

	Descriptions	(% of Total cost or Salary)
1	For Works	2 ~ 10
2	For Transportation	2
3	For Car	3
4	For Employee	(10 + 20)
5	For Worker	(7 + 14)

PROCUREMENT LIST OF MATERIALS

as of July, 1997

No.	Discriptions	Classification of Procuremen		Remarks
		in Local	from Foreign	
1	Portland cement	○		
2	Fine sand for concrete	○		
3	Crushed stone for concrete	○		
4	Deformed and Round bar for concrete	○ 20%	○ 80%	
5	Plywood		○	
6	Structural steel angle, channel		○	
7	Structural steel I-Beam, H-Beam		○	
8	Structural steel plate		○	
9	Grating 400kg/m Galvanized		○	
10	Colgated iron sheet		○	
11	Timber for form work		○	
12	Asphalt pavement materials	○		
13	Phthalic resin paint		○	
14	Epoxy resin paint		○	
15	Tar epoxy resin paint		○	
16	Ductile iron pipe		○	
17	Cross and Tee for Ductile iron pipe		○	
18	Reducer and Bend for Ductile iron pipe		○	
19	Coated steel pipe for water supply		○	
20	Galvanized steel pipe for water supply		○	
21	PVC pipe for water supply	○		
22	Polyethylene pipe for water supply		○	
23	Submersible pump		○	
24	Horizontal pump		○	
25	Butterfly valve for water supply		○	
26	Sluice valve for water supplt		○	
27	Air vent valve for water supply		○	
28	Water meter	○ 1/2" size	○ all size ★	★ except 1/2" size
29	Faucet / Tap		○	
30	Stop valve		○	

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PROCUREMENT LIST OF CONSTRUCTION EQUIPMENT

No.	Discriptions	Classification of Procuremen		Remarks
		in Local	from Foreign	
1	Back hoe 1.0, 0.7, 0.4 ton	O		DAWSSA/Contractors
2	Back hoe with air breaker, 1300 kg	O		〃
3	Bulldozer 21,15, 11 ton	O		〃
4	Dump truck 15,11,7,4 ton	O		〃
5	Trailer 30, 20,15 ton	O		〃
6	Flat bed truck 11, 8, 4 ton	O		〃
7	Cargo truck with cra 8, 4 ton	O		〃
8	Fork lift 5, 3 ton	O		〃
9	Truck crane 160, 100 ton	O		〃
10	Truck crane 60, 35,15 ton	O		〃
11	Clawler crane 40, 35 ton	O		〃
12	Clawler type tractor shovel 1.8, 1.2 m3	O		〃
13	Wheel type tractor shovel 1.8, 1.2 m3	O		〃
14	Vibration roller 11, 7, 4, 2.5 ton	O		〃
15	Tire roller 8 ~ 20 ton	O		〃
16	Macadam roller 10 ~ 20 ton	O		〃
17	Plate compactor 80 ~100 kg	O		〃
18	Motor grader 2.4~ 3.1 m	O		〃
19	Concrete pump truc 65 ~ 45 m3/h	O		〃
20	Concrete mixer car 4.5, 1.6 m3	O		〃
21	Motor type concrete vibrator	O		〃
22	High frequency type concrete vibrator	O		〃
23	Re-bar bender up to 30 mm	O		〃
24	Air compressor 3.7, 6, 9 m3/min	O		〃
25	Clawler drill/dia.60mm 6, 8, 10 ton	O		〃
26	Fuel lorry 2, 6 kl	O		〃
27	Water lorry 6 kl	O		〃
28	Passenger car 1600 / 2000 cc	O		〃
29	Micro bus 10~20 passengers	O		〃
30	4WD car Land cruiser type	O		〃
31	Pick up truck 1 ton	O		〃
32	Engine generator 25 ~ 220 KVA	O		〃
33	Engine welder 230~350 KVA	O		〃
34	Concrete cutter blad 300 dia. mm	O		〃
35	Submersible sand pump 1.5~3.7 KW	O		〃
36	Concrete bucket 0.5, 1.0 m3	O		〃
37	Concrete hand break 30, 20 kg	O		〃
38	Pick hammer 8 kg	O		〃
39	Electric pipe thread machine/15~80 mm dia.	O		〃
40	Cutting machine blade 405 mm dia.	O		〃
41	Electric grinder 100~150 mm dia.	O		〃
42	Drill 10 mm dia.	O		〃
43	Chaine block 2 ~ 15 ton	O		DAWSSA / Contractors

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Inland Transport Tariffs

as of July, 1997

Distance Travel (km)	Fees SL / ton-km	Descriptions
1 ~ 50	0.81	Not included loading and unloading of goods.
51 ~ 100	0.79	
101 ~ 200	0.77	
201 ~ more	0.72	

NOTICE :

1. In case carried load not permit to use the full load of car, then the tariff will be carried on base of axial load as follows ;

   13.0 tons for 2 axial load

   19.5 tons for 3 axial load

   26.0 tons for Truck trailer

   * 6.5 tons for Extra for each actual axial more than 4 axial load car

2. This tariffs carried out for car whose net weight is 3,500 kg or more.

3. In case without cargo load that is empty car, then the tariff will be carried on base self-weight of registered by Government.

6-k

as of July, 1997

Cost of Electric Power

1. Electric Source

1) For Commercial utility — Voltage : 380 V; Frequency : 50 Hz

2) For House Utility — Voltage : 220 V; Frequency : 50 Hz

2. Cost of Electric Power

Utility / Consumption in kw	Cost : SL / kW		
	For House	For Commercial	For Industrial
0 - 100	0.25	1.50 (mono phase)	1.40 (mono phase)
101 - 200	0.35		
201 - 400	0.50		
401 - 600	0.75		
601 - above	1.50		

3. Fixed Charge

Utility / Consumption in kw	Cost : SL / month		
	For House or Commercial	For House	For Commercial
For "0" Consumption	25 (mono phase)	50 (three phase)	75 (three phase)

4. Installation Cost

Utility / Installation items	Cost : SL / set		
	For House or Commercial	For House	For Commercial
For Electric Meter	5,567 (mono phase)	24,817 (three phase)	29,817 (three phase)

DATA BOOK 7

LIST OF COLLECTED DATA

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No.	Name of Data	Lang-uege	Type of Data	Size	No. of Page	Origin /Copy	No. of Copies	Information of Publisher or Doner			
								Organization	Section in charge	Attendant	Address/Tel/Fax
1	Air Quality Standard	Arabic	Table	A4	2	Copy	1	Ministry of Environment		Mr.Rafsanjani	Tel:3310381/Fax:3335645
2	Study of Air Quality in Damascus	Arabic	Report	A4	14	Copy	1	Ministry of Environment		Mr.Rafsanjani	Tel:3310381/Fax:3335645
3	Cultural Assets Law 222 (revised 1978)	Arabic	Report	B5	44	Copy	1	Committee on Old city		Eng. Asahad	
4	Report of The Third Stage of City Master Plan (March.1997)	Arabic	Report	A4/A3	390	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
5	Unit Price of Materials	Arabic	Table	A4	9	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
6	Syria Road Network Map by Ministry of Communications	Arabic	Map		1	Origin	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
7	Syria Rail way Map	Arabic	Map	A1	1	Origin	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
8	List of Local Registered Companies	Arabic	Table	A4	2	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
9	Local Labores Cost	Arabic	Table	A4	4	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
10	Detail Drawing of Crossing with River	Arabic	Map	A2	1	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
11	Detail Drawing of Crossing with Rail way line	Arabic	Map	A2	1	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
12	Monthly water pressure record (5 years)	Arabic	Table	A4	90	Copy	1	DAWSSA	Design & Construction Works	Eng. K. Shalak	Al - Nassr St. Tel:2246000/Fax:2218001
13	Flora and Fauna in Syria	Arabic	Report	A4	3	Copy	1	Ministry of Environment		Mr.Rafsanjani	Tel:3310381/Fax:3335645

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