

PROJECT 1 : URBAN AND SEMI-URBAN WATER SUPPLIES									
1 Water Treatment Chemicals									
Code	Description	Quantity			Total	Unit	Unit price	Total price	Ref
		Dhk	Erb	Sul			in US\$	in USD	
03-04-00001	Calcium hypochlorite in powder form having minimum 65-70 % chlorine packed in 50 Kg plastic container/ drums of export quality.	20	50	24	94	Ton	1,740.00	163,560.00	
03-04-00002	Chlorine gas (purity 99.7%) in one tonne cylinder (empty cylinders will be provided by the Iraqi government) including repairing of old chlorine cylinders before refilling.	72	30	27	129	Ton	425.00	54,825.00	CCX 972881
03-04-00003	Chlorine gas (purity 99.7%) in 65 Kg cylinder (empty cylinders will be provided by the Iraqi government) including repairing of old chlorine cylinders before refilling.	12	40	12	64	Ton	470.00	30,080.00	CCX 972881
03-04-00004	Aluminum sulphate for purifying water, AL <sub>2</sub> O <sub>3</sub> = 16.5% Min, FE <sub>2</sub> O <sub>3</sub> = 0.02% Max, PB = Nil, AS = 1ppm Max, insoluble in water = 0.3% Max, pH (1% solution) = 3.0-3.6, specific gravity = 1.7, solubility in water = 70GR in 100cc at 100 degree C, granule size less than 1.19 mm = 3%, 1.19 to 5 mm = 33%, over 5 mm = 64%, packed in export quality polyethylene bags of 50 Kg each.	40	20	20	80	Ton	225.00	18,000.00	CCX 972881
03-04-00005	Slow dissolving chlorine tablets of each 200 gm for water disinfection (used also for swimming pool), packed in 2 Kg plastic container (or any suitable size). Manufacturer name: CHLOR-CHEM LIMITED, GORSEY LANE, WIDNES, WA8 0HE, ENGLAND, Telephone: 051 495 1989 or 44 223 870312. (or equivalent).	0	0	500	500	Kg	3.62	1,810.00	CCX 973256
	<b>Sub-Total</b>							<b>268,275.00</b>	
	<b>Primary Shipping Cost [12%]</b>							<b>32,193.00</b>	
	<b>Levy [3%]</b>							<b>8,048.25</b>	
	<b>Grand Total</b>							<b>308,516.25</b>	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
2. Water Treatment Equipment									
Code	Description	Quantity			Total	Unit	Unit price	Total price	Reference
		Dhk	Erb	Sul			in US\$	in USD	
03-04-00006	Powder chlorinator complete set, diaphragm pump unit with gear box set and 200 liter plastic tank with spares for two years operation (Type KM 220-1, Wallace and Tiernan Ltd), Q=0-20 l/h, H=8 bar, 240 V, single phase, 50 Hz, 1,500 RPM; or equivalent.	30	100	20	150	Set	791.45	118,717.50	CCX 971510
03-04-00007	V-notch, full vacuum chlorinator, wall mounted, single cylinder operation for open application, including 10 M of 6.5mm vacuum tube, 16 M of 19 mm solution hose, hose clips, bottle of leach detector, instruction manual and spare parts for two years operation. Capacity = 250 g/hr, water gauge = 150 psi, gas gauge = 200 psi, operating pressure 15M, back pressure = 0 with injector set.	0	0	2	2	Set	3,996.40	7,992.80	CCX 971497
03-04-00008	Same as item 2, capacity = 500 g/hr	0	5	2	7	Set	3,996.40	27,974.80	CCX 971497
03-04-00009	Same as item 2, capacity = 1,000 g/hr	0	0	2	2	Set	3,996.40	7,992.80	CCX 971497
03-04-00010	Same as item 2, floor mounted, capacity= 3,500 g/hr.	0	4	2	6	Set	5,232.21	31,393.26	CCX 971497
03-04-00011	Same as item 2, floor mounted, capacity = 2,000 g/hr	0	4	2	6	Set	5,232.00	31,392.00	CCX 971497
03-04-00012	Gas Chlorinator, of different capacity and specifications	8		0	8	Set	3,996.40	31,971.20	

Code	Description	Quantity			Total	Unit	Unit price	Total price	Reference
		Dhk	Erb	Sul			in US\$	in USD	
03-04-00013	Spare parts for powder chlorinator (dosing pump), model G20, Company: Wallace & Tiernan Ltd, Tonbridge, Kent TN1 1QQ, England. see annex E-1 for Erbil	0	1	0	1	Set	36,593.52	36,593.52	CCX 971509

CODE	DESCRIPTION	QTY	UNIT
03-04-00013-1	valve body	80	each
03-04-00013-2	valve cover	80	each
03-04-00013-3	valve seat	80	each
03-04-00013-4	ball pyrex	80	each

Code	Description	Quantity			Total	Unit	Unit price	Total price	Reference
		Dhk	Erb	Sul			in US\$	in USD	
03-04-00014	Spare parts for powder chlorinator (dosing pump), model KM 220-1 Company: Cannon Lane, Tonbridge, Kent, England. see annex 1	0	1	1	2	Set	2,369.52	4,739.04	CCX 971509

CODE	DESCRIPTION	QTY	UNIT
03-04-00014-1	diaphragm	80	each
03-04-00014-2	oil gauge window	80	each
03-04-00014-3	double ball valve	80	each
03-04-00014-4	ball cage	80	each
03-04-00014-5	ball	80	each
03-04-00014-6	cover for discharge vlave	80	each
03-04-00014-7	pressure spring	80	each
03-04-00014-8	adjusting spindle	80	each
03-04-00014-9	cup nut	80	each

Code	Description	Quantity			Total	Unit	Unit price	Total price	Reference
		Dhk	Erb	Sul			in US\$	in USD	
03-04-00015	Aluminum Sulphate Diaphragm dosing pump with variable manual strok control mechanism with 2.5 meter suction hose and 3.5 meter discharge hose and relief valve for pump protection against over pressure Q=500 l/hr, H=2 bar 240v, 50 HZ, single phase with spare parts for 2 years operation and O&M manual in English/ Arabic with parts catalogue	0	10	0	10	Set	750.00	7,500.00	
03-04-00016	Vertical Multistage booster pump for chlorination purpose. Q=4 cum/hr, H=120 m with electrical drive motor and control panel, 380V, 50Hz, # phase with spare parts for two years of operation.	0	0	4	4	Set	3,048.78	12,195.12	
03-04-00017	Rubber pipes high pressure inch	0	0	250	250	M	5.00	1,250.00	
03-04-00018	Rubber pipes high pressure 3/4 inch	0	0	700	700	M	6.00	4,200.00	
03-04-00019	Rubber pipes high pressure 1.0 inch	0	0	250	250	M	7.00	1,750.00	
	<b>Sub-total:</b>							<b>306,266.92</b>	
	<b>Primary Shipping Cost (12%):</b>							<b>36,752.03</b>	
	<b>Levy (3%):</b>							<b>9,188.01</b>	
	<b>Grand Total:</b>							<b>352,206.96</b>	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00020	Mild steel, welded hot dip galvanized pipe for drinking water supply conforming to ISO R65-1981 Medium series standards. Threaded to BS21 (ISO R7) with standard socket at one end and plastic (heavy gauge) cap protection at other end. Size 2.0 inch diameter and 6 M length, should not less than 10 bar.	300	0	500	800	Each	15.33	12,264.00	CCX 971468
03-04-00021	Same as above, size 3.0 inch, should not less than 10 bar.	400	0	1100	1500	Each	25.46	38,190.00	CCX 971468
03-04-00022	Same as above, size 4.0 inch, should not less than 15 bar.	500	0	1200	1700	Each	36.23	61,591.00	CCX 971468
03-04-00023	Same as above, size 6.0 inch, should not less than 15 bar.	0	0	500	500	Each	59.48	29,740.00	CCX 971468
03-04-00024	Brass gate valve set with hand wheel, clockwise closing, FxF, threaded to BS21 (ISO R7)				0			0.00	
03-04-00025	size 2.0 inch, 10 bar	25	0	20	45	Each	4.62	207.90	CCX 971703
03-04-00026	size 3.0 inch, 10 bar	25	0	30	55	Each	11.42	628.10	CCX 971703
03-04-00027	size 4.0 inch, 15 bar	25	0	40	65	Each	20.51	1,333.15	CCX 971703
03-04-00028	size 6.0 inch, 15 bar	0	0	10	10	Each	122.16	1,221.60	CCX 971703
03-04-00029	Brass non-return valve set, FxF, threaded to BS21 (ISO R7), PN 25.				0			0.00	
03-04-00030	size 2.0 inch, 10 bar	10	0	6	16	Each	4.83	77.28	CCX 971703
03-04-00031	size 3.0 inch, 10 bar	10	0	10	20	Each	17.10	342.00	CCX 971703
03-04-00032	size 4.0 inch, 15 bar	10	0	10	20	Each	28.30	566.00	CCX 971703
03-04-00033	size 6.0 inch, 15 bar	0	0	6	6	Each	140.89	845.34	CCX 971703
03-04-00034	Malleable cast iron, hot dip galvanized equal elbows for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), 90 degree, FxF.				0			0.00	
03-04-00035	size 2.0 inch, 10 bar	50	0	20	70	Each	1.66	116.20	CCX 971707
03-04-00036	size 3.0 inch, 10 bar	50	0	24	74	Each	3.96	293.04	CCX 971707
03-04-00037	size 4.0 inch, 15 bar	50	0	40	90	Each	7.50	675.00	CCX 971707
03-04-00038	size 6.0 inch, 15 bar	0	0	12	12	Each	18.18	218.16	CCX 971707

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3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00039	Malleable cast iron, hot dip galvanized equal Tee-joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxFxF.				0			0.00	
03-04-00040	size 2.0 inch, 10 bar	50	0	20	70	Each	2.20	154.00	CCX 971707
03-04-00041	size 3.0 inch, 10 bar	50	0	24	74	Each	4.87	360.38	CCX 971707
03-04-00042	size 4.0 inch, 15 bar	50	0	30	80	Each	10.06	804.80	CCX 971707
03-04-00043	size 6.0 inch, 15 bar	0	0	10	10	Each	22.12	221.20	CCX 971707
03-04-00044	Malleable cast iron, hot dip galvanized equal unions for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF.				0			0.00	
03-04-00045	size 2.0 inch, 10 bar	50	0	20	70	Each	2.57	179.90	CCX 971707
03-04-00046	size 3.0 inch, 10 bar	50	0	30	80	Each	6.97	557.60	CCX 971707
03-04-00047	size 4.0 inch, 15 bar	50	0	40	90	Each	10.40	936.00	CCX 971707
03-04-00048	size 6.0 inch, 15 bar	0	0	6	6	Each	23.75	142.50	CCX 971707
03-04-00049	Malleable cast iron, hot dip galvanized reducer joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF.				0			0.00	
03-04-00050	size 6.0 x 4.0 inch, 15 bar	5	0	6	11	Each	9.00	99.00	CCX 971707
03-04-00051	size 6.0 x 3.0 inch, 15 bar	5	0	6	11	Each	8.75	96.25	CCX 971707
03-04-00052	size 6.0 x 2.0 inch, 15 bar	5	0	6	11	Each	8.70	95.70	CCX 971707
03-04-00053	size 4.0 x 3.0 inch, 15 bar	10	0	14	24	Each	4.80	115.20	CCX 971707
03-04-00054	size 4.0 x 2.0 inch, 15 bar	10	0	14	24	Each	4.46	107.04	CCX 971707
03-04-00055	size 3.0 x 2.0 inch, 10 bar	10	0	14	24	Each	2.65	63.60	CCX 971707
03-04-00056	Viking Johnson coupling for 110 mm pipe, PN 25, standard length.	50	0	30	80	Each	23.01	1,84.80	CCX 973376
03-04-00057	Same as item 11, for 160 mm pipe.				30	Each	42.38	847.60	CCX 973376

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3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00058	Same as item 11, for 90 mm pipe				30	Each	20.00	400.00	
03-04-00059	Steel coupling for jointing 80* mm pipe type (SYDDAL) Maxi Address; Denton, Manchester, England				30	Each	30.00	600.00	
03-04-00060	Same as item 14 For 100mm pipe				30	Each	45.00	900.00	
03-04-00061	Same as item 14 For 150mm pipe	0	0	20	20	Each	50.00	1,000.00	
03-04-00062	Same as item 14 For 200mm pipe	0	0	20	20	Each	75.00	1,500.00	
03-04-00063	Same as item 14 For 250mm pipe	0	0	6	6	Each	100.00	600.00	
03-04-00064	Same as item 14 For 300mm pipe	0	0	4	4	Each	150.00	600.00	
03-04-00065	Ductile iron pipe with rubber gasket joints (Tyton joints) with rubber gaskets, 6 metres nominal length, 4 inch diameter. PN 25.	250	8000	1000	9250	Each	60.15	556387.50	CCX 973843
03-04-00066	Same as item 23, 6 inch dia.	100	1,440	2000	3540	Each	93.60	331344.00	CCX 973846
03-04-00067	Same as item 23, 8 inch dia.	100	1,000	1500	2600	Each	127.00	330200.00	CCX 973846
03-04-00068	Same as item 23, 10 inch dia.	100	500	500	1100	Each	164.12	180,532.00	CCX 973843
03-04-00069	Same as item 23, 3 inch dia.				1050	Each	54.30	54,300.00	CCX 973843
03-04-00070	Same as item 23, 12 inch dia.	0	100	500	600	Each	180.00	108,000.00	
03-04-00071	Same as item 23, 16 inch dia.	0	100	500	600	Each	200.00	120,000.00	
03-04-00072	Same as item 23, 20 inch dia.	0	100	500	600	Each	250.00	150,000.00	
03-04-00073	Equal elbows for ductile pipes with rubber gasket joints, 90 degree, with rubber gaskets, FxF, PN 25.				0			0.00	
03-04-00074	3 inch diam	0	15	50	65	Each	14.70	955.50	CCX 972290
03-04-00075	4 inch diam	10	40	80	130	Each	21.00	2,730.00	CCX 972290
03-04-00076	6 inch diam	5	20	80	105	Each	35.70	3,748.50	CCX 972290
03-04-00077	8 inch diam	5	15	60	80	Each	58.80	4,704.00	CCX 972290
03-04-00078	10 inch diam	0	10	40	50	Each	88.19	4,409.50	CCX 972290
03-04-00079	12 inch diam	0	5	50	55	Each	100	5500.00	

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\* amended 9 June 99

Amended 17 March 99

Distribution Plan - Phase V

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00080	Equal elbows for ductile pipes with rubber gasket joints, 45 degree, with rubber gaskets, FxF, PN 25.				0			0.00	
03-04-00081	3 inch diam	0	5	12	17	Each	12.60	214.20	CCX 972290
03-04-00082	4 inch diam	10	10	16	36	Each	16.80	604.80	CCX 972290
03-04-00083	6 inch diam	5	5	10	20	Each	29.40	588.00	CCX 972290
03-04-00084	8 inch diam	5	5	10	20	Each	46.20	924.00	CCX 972290
03-04-00085	10 inch diam	0	5	10	15	Each	67.20	1,008.00	CCX 972290
03-04-00086	12 inch diam	5	5	12	22	Each	80.00	1,760.00	
03-04-00087	20 inch diam	0	0	12	12	Each	100.00	1,200.00	
03-04-00088	Equal Tees for ductile pipes with rubber gasket joints, with rubber gaskets, FxFxF, PN 25.				0			0.00	
03-04-00089	3 inch diam	0	20	6	26	Each	23.10	600.60	CCX 972290
03-04-00090	4 inch diam	10	60	6	76	Each	31.50	2,394.00	CCX 972290
03-04-00091	6 inch diam	5	30	6	41	Each	50.40	2,066.40	CCX 972290
03-04-00092	8 inch diam	5	30	6	41	Each	79.80	3,271.80	CCX 972290
03-04-00093	10 inch diam	0	30	6	36	Each	128.10	4,611.60	CCX 972290
03-04-00094	12 inch diam	0	5	6	11	Each	80.00	880.00	
03-04-00095	20 inch diam	0	0	6	6	Each	120.00	720.00	
03-04-00096	Ductile Tee Socket with rubber, PN 25.				0			0.00	
03-04-00097	3x3 inch diam	0	0	30	30	Each	10.00	300.00	
03-04-00098	4x4 inch diam	0	0	75	75	Each	31.50	2,362.50	
03-04-00099	4x3 inch diam	0	5	60	65	Each	35.00	2,275.00	
03-04-00100	6x4 inch diam	10	10	75	95	Each	50.00	4,750.00	
03-04-00101	6x3 inch diam	5	5	60	70	Each	50.00	3,500.00	
03-04-00102	6x6 inch diam	0	0	75	75	Each	50.00	3,750.00	
03-04-00103	8x8 inch diam	0	0	40	40	Each	90.00	3,600.00	
03-04-00104	8x6 inch diam	5	5	40	50	Each	90.00	4,500.00	
03-04-00105	8x4 inch diam	5	10	45	60	Each	90.00	5,400.00	
03-04-00106	8x3 inch diam	0	0	20	20	Each	90.00	1,800.00	
03-04-00107	10x4 inch diam	0	10	0	10	Each	130.00	1,300.00	
03-04-00108	12x12 inch diam	0	0	25	25	Each	140.00	3,500.00	
03-04-00109	10x10 inch diam	0	0	25	25	Each	130.00	3,250.00	
03-04-00110	20x20 inch diam	0	0	25	25	Each	150.00	3,750.00	
03-04-00111	10x6 inch diam	0	5	0	5	Each	130.00	650.00	

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3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00112	Parallel reducers for ductile pipes with rubber gasket joints, with rubber gaskets, FxF, PN 25.				0			0.00	
03-04-00113	20 x 20 inch diam	0	0	12	12		200.00	2,400.00	
03-04-00114	16 x 16 inch diam	0	0	12	12		100.00	1,200.00	
03-04-00115	12 x 10 inch diam	0	5	12	17	Each	67.20	1,142.40	CCX 972291
03-04-00116	12 x 8 inch diam	0	5	12	17	Each	71.40	1,213.80	CCX 972291
03-04-00117	12 x 6 inch diam	0	5	16	21	Each	73.50	1,543.50	CCX 972291
03-04-00118	12 x 4 inch diam	0	10	16	26	Each	120.12	3,123.12	CCX 972291
03-04-00119	10 x 8 inch diam	0	5	10	15	Each	50.40	756.00	CCX 972291
03-04-00120	10 x 6 inch diam	0	5	10	15	Each	52.50	787.50	CCX 972291
03-04-00121	10 x 4 inch diam	0	10	8	18	Each	85.47	1,538.46	CCX 972291
03-04-00122	8 x 6 inch diam	0	5	18	23	Each	35.70	821.10	CCX 972291
03-04-00123	8 x 4 inch diam	0	10	18	28	Each	37.80	1,058.40	CCX 972290
03-04-00124	8 x 3 inch diam	0	5	18	23	Each	57.74	1,328.02	CCX 972290
03-04-00125	6 x 4 inch diam	0	10	18	28	Each	25.20	705.60	CCX 972290
03-04-00126	6 x 3 inch diam	0	5	18	23	Each	27.30	627.90	CCX 972290
03-04-00127	4 x 3 inch diam	0	5	18	23	Each	14.70	338.10	CCX 972290
03-04-00128	Equal sockets for ductile pipes with rubber gasket joints, FxF, PN 25.				0			0.00	
03-04-00129	4 inch diam	10	5	6	21	Each	23.10	485.10	CCX 972290
03-04-00130	6 inch diam	5	5	6	16	Each	37.80	604.80	CCX 972290
03-04-00131	8 inch diam	5	5	6	16	Each	54.60	873.60	CCX 972290
03-04-00132	10 inch diam	0	5	6	11	Each	73.50	808.50	CCX 972290
03-04-00133	12 inch diam	0	5	6	11	Each	80.00	880.00	
03-04-00134	20 inch diam	0	5	6	11	Each	120.00	1,320.00	
03-04-00135	Standard socket & spigot joints for ductile pipes with rubber gasket joints, with rubber gaskets, FxM, PN 25.				0			0.00	
03-04-00136	3 inch diam	0	0	45	45	Each	33.23	1,495.35	CCX 974690
03-04-00137	4 inch diam	10	5	60	75	Each	39.75	2,981.25	CCX 974690

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Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00138	6 inch diam	5	5	36	46	Each	142.67	6,562.82	CCX 974683
03-04-00139	8 inch diam	5	5	36	46	Each	200.33	9,215.18	CCX 974683
03-04-00140	10 inch diam	0	5	10	15	Each	160.66	2,409.90	CCX 974689
03-04-00141	12 inch diam	0	0	10	10	Each	211.80	2,118.00	CCX 974691
03-04-00142	20 inch diam	0	0	10	10	Each	220.00	2,200.00	
03-04-00143	Ductile Ion Adaptors from socket unit rubber joint to , PN 25 flanged end				0			0.00	
03-04-00144	3 inch diam	0	5	6	11	Each	10.00	110.00	
03-04-00145	4 inch diam	0	5	6	11	Each	12.00	132.00	
03-04-00146	6 inch diam	0	5	6	11	Each	24.00	264.00	
03-04-00147	8 inch diam	0	5	6	11	Each	39.00	429.00	
03-04-00148	10 inch diam	0	5	6	11	Each	54.00	594.00	
03-04-00149	12 inch diam	0	5	6	11	Each	80.00	880.00	
03-04-00150	14 inch diam	0	5	6	11	Each	100.00	1,100.00	
03-04-00151	16 inch diam	0	5	6	11	Each	120.00	1,320.00	
03-04-00152	18 inch diam	0	5	6	11	Each	140.00	1,540.00	
03-04-00153	20 inch diam	0	5	6	11	Each	160.00	1,760.00	
03-04-00154	24 inch diam	0	5	6	11	Each	200.00	2,200.00	
03-04-00155	Bolted flanged spigot joint for ductile pipes, with bolts, nuts & gaskets, PN 25, ISO flanges				0			0.00	
03-04-00156	3 inch diam	0	5	6	11	Each	23.36	256.96	CCX 974690
03-04-00157	4 inch diam	10	5	6	21	Each	27.79	583.59	CCX 974690
03-04-00158	6 inch diam	5	5	6	16	Each	93.33	1,493.28	CCX 974690
03-04-00159	8 inch diam	5	5	6	16	Each	140.00	2,240.00	CCX 974690
03-04-00160	10 inch diam	0	5	6	11	Each	144.50	1,589.50	CCX 974690
03-04-00161	12 inch diam	5	5	6	16	Each	197.23	3,155.68	CCX 974691
03-04-00162	14 inch diam	0	5	6	11	Each	120.00	1,320.00	
03-04-00163	16 inch diam	0	5	6	11	Each	140.00	1,540.00	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00164	18 inch diam	0	5	6	11	Each	160.00	1,760.00	
03-04-00165	20 inch diam	0	5	6	11	Each	180.00	1,980.00	
03-04-00166	24 inch diam	0	5	6	11	Each	220.00	2,420.00	
03-04-00167	Flanged gate valves for ductile pipes with bolts, nuts & gaskets, PN 25, ISO flanges				0			0.00	
03-04-00168	3 inch diam	0	5	50	55	Each	90.95	5,002.25	CCX 972308
03-04-00169	4 inch diam	5	20	70	95	Each	106.63	10,129.85	CCX 972308
03-04-00170	6 inch diam	5	10	50	65	Each	170.81	11,102.65	CCX 972308
03-04-00171	8 inch diam	5	5	50	60	Each	344.12	20,647.20	CCX 972308
03-04-00172	10 inch diam	0	5	15	20	Each	601.97	12,039.40	CCX 972308
03-04-00173	12 inch diam	0	5	15	20	Each	789.37	15,787.40	CCX 972308
03-04-00174	14 inch diam	0	0	10	10	Each	250.00	2,500.00	
03-04-00175	16 inch diam	0	0	5	5	Each	300.00	1,500.00	
03-04-00176	18 inch diam	0	0	5	5	Each	350.00	1,750.00	
03-04-00177	20 inch diam	0	0	4	4	Each	400.00	1,600.00	
03-04-00178	24 inch diam	0	0	2	2	Each	500.00	1,000.00	
03-04-00179	Flanged, non-return valves for ductile pipes with bolts, nuts & gaskets, PN 25, ISO flanges				0			0.00	
03-04-00180	3 inch diam	0	5	10	15	Each	30.00	450.00	
03-04-00181	4 inch diam	10	25	12	47	Each	95.00	4,465.00	CCX 972306
03-04-00182	6 inch diam				30	Each	169.88	4,586.76	CCX 972306
03-04-00183	8 inch diam				30	Each	293.07	6,447.54	CCX 972306
03-04-00184	16* inch diam	0	5	8	13	Each	429.46	5,582.98	CCX 972306
03-04-00185	20* inch diam	0	3	8	11	Each	748.14	8,229.54	CCX 972306

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\* amended 9 June 99

Amended 17 March 99

Distribution Plan - Phase V

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00186	Flanged air valves for ductile pipes with bolts, nuts & gaskets, PN 25, ISO flanges				0			0.00	
03-04-00187	4 inch diam	2	5	0	7	Each	238.64	1,670.48	CCX 972306
03-04-00188	6 inch diam	2	0	0	2	Each	492.75	985.50	CCX 972306
03-04-00189	Flanged foot valves with strainers				0			0.00	
03-04-00190	4 inch diam				10	Each	14.72	117.76	CCX 972454
03-04-00191	6 inch diam				10	Each	26.30	210.40	CCX 972454
03-04-00192	8 inch diam				10	Each	46.27	370.16	CCX 972454
03-04-00193	16* inch diam	0	0	8	8	Each	152.20	1,217.60	CCX
03-04-00194	20* inch diam	0	0	8	8	Each	190.00	1,520.00	CCX 972454
03-04-00195	Surface box for roadways				200	Each	5.00	500.00	
03-04-00196	Blank flanges for ductile pipes				0			0.00	
03-04-00197	100 mm dia	0	0	45	45	Each	10.00	450.00	
03-04-00198	150 mm dia	0	0	45	45	Each	15.00	675.00	
03-04-00199	200 mm dia	0	0	24	24	Each	20.00	480.00	
03-04-00200	250 mm dia	0	0	24	24	Each	25.00	600.00	
03-04-00201	PVC pipe, PN 10, 90 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	500	500	Each	10.00	5,000.00	
03-04-00202	PVC pipe, PN 10, 110 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	1,000	1000	Each	11.54	11,540.00	CCX 972104
03-04-00203	PVC pipe, PN 10, 160 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	500	500	Each	20.00	10,000.00	
03-04-00204	PVC pipe, PN 10, 220 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	500	500	Each	30.00	15,000.00	
03-04-00205	PVC elbow, PN 10, 90 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	20	20	Each	1.50	30.00	
03-04-00206	PVC elbow, PN 10, 110 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	30	30	Each	2.50	75.00	
03-04-00207	PVC elbow, PN 10, 220 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	20	20	Each	5.00	100.00	

\* amended 9 June 99

Amended 17 March 99

Distribution Plan - Phase V

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
3. Pipes and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00208	PVC elbow, PN 10, 160 mm Dia, 6 meter long with rubber gasket joints, for potable water supply.	0	0	20	20	Each	3.50	70.00	
03-04-00209	PVC Tee with rubber gasket joints, for potable water supply.	0	0		0			0.00	
03-04-00210	220x220 mm dia	0	0	10	10	Each	5.00	50.00	
03-04-00211	220x160 mm dia	0	0	10	10	Each	5.00	50.00	
03-04-00212	220x110 mm dia	0	0	10	10	Each	5.00	50.00	
03-04-00213	160x160 mm dia	0	0	15	15	Each	4.00	60.00	
03-04-00214	160x110 mm dia	0	0	15	15	Each	4.00	60.00	
03-04-00215	160x90 mm dia	0	0	15	15	Each	4.00	60.00	
03-04-00216	110x110 mm dia	0	0	20	20	Each	3.00	60.00	
03-04-00217	110x90 mm dia	0	0	20	20	Each	3.00	60.00	
03-04-00218	90x90 mm dia	0	0	20	20	Each	3.00	60.00	
03-04-00219	PVC Socket joints with rubber gaskets, for potable water supply.				0			0.00	
03-04-00220	90 mm dia	0	0	30	30	Each	3.00	90.00	
03-04-00221	110 mm dia	0	0	30	30	Each	4.00	120.00	
03-04-00222	160 mm dia	0	0	20	20	Each	5.00	100.00	
03-04-00223	220 mm dia	0	0	20	20	Each	6.00	120.00	
03-04-00224	Gate valve for PVC pipes				0			0.00	
03-04-00225	90 mm dia	0	0	15	15	Each	25.00	375.00	
03-04-00226	110 mm dia	0	0	20	20	Each	35.00	700.00	
03-04-00227	160 mm dia	0	0	10	10	Each	45.00	450.00	
03-04-00228	220 mm dia	0	0	10	10	Each	55.00	550.00	
03-04-00229	Heavy duty type, HDPE pipe for chlorination purpose, diameter 1 inch, with joints, (12-16) Bar.	0	500	200	700	Metre	0.69	483.00	CCX 972446
03-04-00230	Heavy duty type, HDPE pipe for chlorination purpose, diameter ¾inch, with joints, (12-16) Bar.	0	200	500	700	Metre	0.45	315.00	CCX 972446
03-04-00231	Steel casing pipe with standard threads on both ends with heavy duty sockets in 6 metres length and 8 inches diameter				100	Each	140.00	5,600.00	
03-04-00232	Slotted steel pipe to be used as a screen, 0.3mm slots, minimum 5% open area, slots may be vertical or horizontal, 8 pipe	0	0	25	25	Each	160.00	4,000.00	
	<b>Sub-total :</b>							<b>2,334,924.1</b>	
	<b>Primary Shipping Cost (12%) :</b>							<b>280,190.89</b>	
	<b>Levy (3%) :</b>							<b>70,047.72</b>	
	<b>Grand Total :</b>							<b>2,685,162.7</b>	



PROJECT 1:URBAN AND SEMI-URBAN WATER SUPPLIES									
4. Other Materials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00233	Gas masks/breathing apparatus for protection from chlorine gas used in water treatment facilities	20	0	20	40	Each	24.00	960.00	94/0229
03-04-00234	Battery, 12V x 11P x 60 amp-hour, for Toyota pick-up	15	0	0	15	Each	26.82	402.30	
03-04-00235	Battery, 12V x 19P x 135 amp-hour, for Garbage collectors and sewage tankers (HINO, KB 422)	10	0	0	10	Each	73.95	739.50	95/1097
03-04-00236	Battery, 12V x 13P x 90 amp-hour, for Land cruiser and Nissan petrol	8	0	0	8	Each	43.96	351.68	
03-04-00237	Tyre with internal tube, size 750x16 for fork lifter	8	0	0	8	Set	230.00	1,840.00	95/1097
03-04-00238	Tyre with internal tube, size 1200x24	16	0	0	16	Set	258.47	4,135.52	95/1098
03-04-00239	Tyre with internal tube, size 1100x20	10	0	0	10	Set	215.08	2,150.80	95/1098
03-04-00240	Tyre with internal tube, size 1000x20	10	0	0	10	Set	192.21	1,922.10	
03-04-00241	Tyre with internal tube for fork lift type Komatso, capacity 3 ton, Size 6.00x 9	6	0	0	6	Set	160.00	960.00	
03-04-00242	Ordinary Portland cement packed in 5-ply 50 kg paper bags (equivalent to BS12).	80	0	0	80	Ton	37.00	2,960.00	
03-04-00243	Concrete blocks size (20x20x40)cm	2e+04	0	0	25000	Each	0.12	3,000.00	

PROJECT 1:URBAN AND SEMI-URBAN WATER SUPPLIES									
4. Other Materials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00244	Mild steel reinforcing bars of size 10 mm diameter and 6 m length (random), twisted and commercial grade, ultimate strength 4250-5350 kg/cm2, yield strength 2320-2450 kg/cm2 and average weight per meter 617 gm.	6	0	0	6	Ton	311.00	1,866.00	CCX 972052
03-04-00245	Excavator, POCLAIN type 75P, wheel type, with jack hammer and (40, 60, 80, 100)cm width, 0.2 cum excavating bucket, France made. or present equivalent				1	Each	60,000.00	60,000.00	
03-04-00246	Vehicle, pick up double cabinet type TOYOTA, made as per Saudi Arabia standards, Containing air conditioning system with radio and tape recorder.	2	6	8	16	Each	15,000.00	240,000.00	
03-04-00247	Same as above, Single Cabin	0	0	6	6	Set	20,000.00	120,000.00	
03-04-00248	Computer, Lap-top, TOSHIBA Satelite				2	Each	3,000.00	3,000.00	
03-04-00249	Laser jet printer, HP 6P	2	0	0	2	Each	600.00	1,200.00	
03-04-00250	Desk-top computer: ACER pentum-300MHz CPU, 64MB RAM 3GB hard disk, 3.5 inch high density floppy disk drive and CD ROM drive 24x speed Arabic/English keyboard, SVGA card, SVGA 14 inch monitor with mouse and mouse pad with all cables. Should be preloaded with WINDOWS 95 and MS office Version 7 Arabic.	1	0	4	5	Each	2,500.00	12,500.00	
03-04-00251	Photocopier, NP CANON 6062	1	0	0	1	Each	12,100.00	12,100.00	

PROJECT 1:URBAN AND SEMI-URBAN WATER SUPPLIES									
4. Other Materials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00252	Spare parts for Trucks and Machines, see Annex 2	0	0	1	1	Set	25,000.00	25,000.00	
03-04-00253	Hand diesel roller compactor driven by diesel engine pushed by hand for compacting soil and the like, compaction capacity 1 tonne	0	0	1	1	Set	4,000.00	4,000.00	
03-04-00254	Tipping truck capacity 10cum	0	0	2	2	Set	70,000.00	140,000.00	
03-04-00255	Stainless steel sewer rods for sewerage networks, size 8mm diameter and 2 metre long with standard jointing system	0	0	50	50	Each	50.56	2,528.00	CCX 972338
03-04-00256	Fork Lifter, 3 Ton Capacity	0	0	1	1	Each	24,000	24,000.00	
	<b>Sub-Total</b>							<b>668,725.90</b>	
	<b>Primary Shipping Cost (12%)</b>							<b>80,247.11</b>	
	<b>Levy (3%)</b>							<b>20,061.78</b>	
	<b>Grand Total</b>							<b>769,034.78</b>	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
5. Submersible Pumps and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00257	Submersible pump with direct coupled electrical motor and with non-return valve, control panel, 150M three core cable and cable termination kit. Q = 2cum/hr (min), head = 115M (max), (SP 8A-30), 380 volt, 50Hz and 3 Ph for 6.0 and 8.0 inches cased borewell. To be installed on new bore wells.	0	0	0	0	Set	4,500.00	0.00	
03-04-00258	Same as above, Q=10cum/hr (min), head=105 M (max), (SP 16-12).	0	0	0	0	Set	2,374.64	0.00	CCX 972120
03-04-00259	Same as above, Q=10cum/hr (min), head=210M (max), (SP 16-24).	2	0	2	4	Set	4,349.90	17,399.60	CCX 971627
03-04-00260	Same as above, Q=10cum/hr (min), head=430M (max), (SP 16-50).	0	0	0	0	Set	10,714.14	0.00	CCX 971594
03-04-00261	Same as above, Q=14cum/hr (min), head=135M (max), (SP 27-14).	0	0	2	2	Set	3,713.00	7,426.00	CCX 971594
03-04-00262	Same as above, Q=14cum/hr (min), head=105M (max), (SP 27-11).	1	0	0	1	Set	8,300.00	8,300.00	
03-04-00263	Same as above, Q=14cum/hr (min), head=185M (max), (SP 27-19).	1	7	0	8	Set	4,255.00	34,040.00	CCX 971594
03-04-00264	Same as above, Q=14cum/hr (min), head=270 M (max), (SP 27-28).	1	0	2	3	Set	6,327.00	18,981.00	
03-04-00265	Same as above, Q=22cum/hr (min), head=310 M (max), (SP 45-31).	1	0	0	1	Set	9,060.00	9,060.00	
03-04-00266	Same as above, Q=2 cum/hr (min), head=115 M (max), (SP 8A-21).	1	0	0	1	Set	2,240.00	2,240.00	
03-04-00267	Same as above, Q=16 cum/hr (min), head=280 M (max), (SP 25-30).	0	0	2	2	Set	2,240.00	4,480.00	
03-04-00268	Same as above, Q=4 cum/hr (min), head=220 M (max), (SP 10-30).	0	0	2	2	Set	2,240.00	4,480.00	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
5. Submersible Pumps and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00269	Same as above, Q=22 cum/hr (min), head=120 M (max), (SP 45-12).	0	0	2	2	Set	2,240.00	4,480.00	
03-04-00270	Same as above, Q=50 cum/hr (min), head=135 M (max), (SP 75-14).	0	0	2	2	Set	2,240.00	4,480.00	
03-04-00271	Same as above, Q=14/hr (min), head=270M (max), (SP 27-24).	0	5	0	5	Set	6,327.00	31,635.00	
03-04-00272	Same as above, Q=22cum/hr (min), head=210M (max), (SP 46-15).	0	10	0	10	Set	6,197.97	61,979.70	
03-04-00273	Same as above, Q=22cum/hr (min), head=310M (max), (SP 46-23).	0	8	0	8	Set	9,060.00	72,480.00	
03-04-00274	Same as above, Q=22cum/hr (min), head=150M (max), (SP 45-15).	0	0	0	0	Set	4,409.58	0.00	CCX 971594
03-04-00275	Motor set for Grundfos submersible pump with tail cable and cable joint and control panel, 400V, 50HZ, 3PH.				0			0.00	95/1060
03-04-00276	Capacity 7.5 KW for SP 27-11	0	0	3	3	Set	1,600.00	4,800.00	
03-04-00277	Capacity 11.0KW for SP 27-14	0	0	3	3	Set	559.41	1,678.23	CCX 971618
03-04-00278	Capacity 15.0KW for SP 25-15	0	3	3	6	Set	1,900.00	11,400.00	
03-04-00279	Capacity 18.5KW for SP 46-11	0	3	3	6	Set	753.53	4,521.18	
03-04-00280	Capacity 22.0KW for SP 27-24	0	8	3	11	Set	848.23	9,330.53	CCX 971618
03-04-00281	Capacity 30.0KW for SP 46-18	0	3	2	5	Set	1,738.23	8,691.15	
03-04-00282	Capacity 37.0KW for SP 46-24	0	8	2	10	Set	1,908.82	19,088.20	
03-04-00283	Flexible electrical power cable for deep well submersible motors size:				0			0.00	
03-04-00284	3 x 16 MM2	0	1,500	500	2000	M.L	4.32	8,640.00	CCX 971627
03-04-00285	3 x 10 MM2	0	0	500	500	M.L	2.82	1,410.00	CCX 971627
03-04-00286	3 x 6 MM2	0	0	500	500	M.L	1.94	970.00	CCX 971627
03-04-00287	3 x 4 MM2	0	0	500	500	M.L	15.00	7,500.00	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
5. Submersible Pumps and Specials									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00288	Control panel for submersible motor with main switch circuit breaker phase failure relay, timer relay, over load relay, ammeter, and voltmeter, 380 Volt, 50 Hz, 3 PH, auto-transformer starter.				0			0.00	
03-04-00289	Capacity 11.0KW	0	0	2	2	Set	1,000.00	2,000.00	
03-04-00290	Capacity 15.0KW	0	0	2	2	Set	1,411.17	2,822.34	CCX 971589
03-04-00291	Capacity 18.5KW	0	0	2	2	Set	1,500.00	3,000.00	
03-04-00292	Capacity 22.0KW	0	0	2	2	Set	1,528.48	3,056.96	CCX 971589
03-04-00293	Capacity 30.0KW	0	0	1	1	Set	1,714.58	1,714.58	CCX 971589
03-04-00294	Capacity 37.0KW	0	0	1	1	Set	1,837.18	1,837.18	CCX 971589
03-04-00295	Capacity 7.0KW	0	0	1	1	Set	4,000.00	4,000.00	
	<b>Sub-total</b>							<b>377,921.65</b>	
	<b>Primary Shipping Cost (12%):</b>							<b>45,350.60</b>	
	<b>Levy (3%):</b>							<b>11,337.65</b>	
	<b>Grand Total:</b>							<b>434,609.90</b>	

## PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLY

## 6. Vertical Turbine Pumps

Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in US\$	Ref
		Dhk	Erb	Sul					
03-04-00296	Deepwell turbine pump capacity Q=14cum/hr(min), head=160M (max), preferably BP27-16 type from Grundfos. Complete with bowl assembly, pump head and discharge flange with 3 inch BSP thread, electric motor 3x380/660V, 50Hz, with housing guard direct coupled with pump head, top column pipe 3 inch length 0.485M threaded with 8 threads per inch, complete with 3/4 inch line shaft, mechanical shaft seal and coupling, intermediate column pipe 3 inch line shaft, column bearing and liner, suction pipe 3 inch, length 1.64M with 3 inch spring loaded foot-valve with strainer 50M cable 4x6MM2 and 4 PCS cable gland, spare parts for two years operatoin, O&M manual in English with appropriate packings.	0	3		3	Set	6,406.74	19,220.22	CCX 971549
03-04-00297	Same as above, Q=22cum/hr (min), H=165m (max), (BP 45-16)	0	3	2	5	Set	6,436.71	32,183.55	CCX 971549
03-04-00298	Same as above, Q=14cum/hr (min), H=95m (max), (BP 27-10)				4	Set	6,406.74	6,406.74	
03-04-00299	Same as above, Q=22cum/hr (min), H=155m (max), (BP 45-12)	0	3	1	4	Set	9,500.00	38,000.00	
03-04-00300	Vertical motor complete set for Grundfos vertical turbine pumps, 380V, 50Hz, 2900 rpm, 3PH and				0			0.00	95/1065
03-04-00301	capacity 15KW	0	2	2	4	Each	714.20	2,856.80	CCX 971861
03-04-00302	Capacity 22KW	0	2	2	4	Each	888.40	3,553.60	CCX 971861
03-04-00303	Capacity 30KW	0	2	2	4	Each	1,201.97	4,807.88	CCX 971864
03-04-00304	Diesel engine for operating vertical turbine pump, capacity 45 HP, complete set with clutch, 50 degrees Celcius max; and 1,200m max altitude	0	10		10	Set	8,177.50	81,775.00	CCX 972432
03-04-00305	Right angle gear for Grundfos vertical turbine pump.				0			0.00	95/1065
03-04-00306	Type 2GS25/3GS26 for 20HP	0	5	1	6	Set	1,049.04	6,294.24	CCX 971558
03-04-00307	Type 2GS45/3GS46 for 40HP	0	4	1	5	Set	1,858.02	9,290.10	CCX 971558

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLY									
6. Vertical Turbine Pumps									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in US\$	Ref
		Dhk	Erb	Sul					
03-04-00308	Column bearing with vulcanized rubber outer sleeve and rubber linings with bushes of synthetic material for Grundfos vertical turbine pumps,				0			0.00	
03-04-00309	size 3 x 1/2 inch	0	0	20	20	Each	15.66	313.20	CCX 971558
03-04-00310	size 3 x 5/8 inch	0	350	30	380	Each	15.08	5,730.40	CCX 971558
03-04-00311	size 3 x 3/4 inch	0	350	30	380	Each	14.90	5,662.00	CCX 971558
03-04-00312	size 4 x 3/4 inch	0	350	20	370	Each	16.41	6,071.70	CCX 971558
03-04-00313	size 4 x 7/8 inch	0	300	20	320	Each	19.47	6,230.40	CCX 971558
03-04-00314	size 5 x 7/8 inch	0	150	10	160	Each	18.72	2,995.20	CCX 971558
03-04-00315	Sealing set for shaft seal for Grundfos vertical turbine pumps				0			0.00	
03-04-00316	size 5/8 inch	0	60	0	60	Each	25.78	1,546.80	CCX 971558
03-04-00317	size 3/4 inch	0	60	0	60	Each	140.89	8,453.40	CCX 971558
03-04-00318	size 7/8 inch	0	60	0	60	Each	136.89	8,213.40	CCX 971558
03-04-00319	size 1 inch	0	10	0	10	Each	51.75	517.50	CCX 971558
03-04-00320	Shaft coupling for Grundfos vertical turbine pumps				0			0.00	95/1071
03-04-00321	size 5/8 inch	0	13	0	13	Each	24.43	317.59	CCX 971558
03-04-00322	size 3/4 inch	0	12	0	12	Each	23.86	286.32	CCX 971558
03-04-00323	size 7/8 inch	0	12	0	12	Each	32.36	388.32	CCX 971558
03-04-00324	Driver for Grundfos vertical turbine pump type BP 16/27/45,				0			0.00	
03-04-00325	size 3/4 inch	0	60	0	60	Each	24.59	1,475.40	CCX 972123
03-04-00326	size 5/8 inch	0	35	0	35	Each	24.59	860.65	CCX 972123
03-04-00327	size 7/8 inch	0	35	0	35	Each	31.82	1,113.70	CCX 972123
03-04-00328	Pump discharge head, complete set consisting of pump head, gasket, bolt & nut, stay bolts, nuts, pipe plug for BP 27-15, BP 27-12 & BP 45-7				0			0.00	
03-04-00329	size 3.0 inch	0	5	1	6	Each	528.06	3,168.36	CCX 972124
03-04-00330	size 4.0 inch	0	5	1	6	Each	531.67	3,190.02	CCX 972124
03-04-00331	Line shaft with shaft with coupling for Grundfos vertical turbine pumps,				0			0.00	
03-04-00332	size 5/8 inch x 1.8 m	0	350	0	350	Each	34.74	12,159.00	CCX 971549

## PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLY

## 6. Vertical Turbine Pumps

Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in US\$	Ref
		Dhk	Erb	Sul					
03-04-00333	size 3/4 inch x 1.8 m	0	350	0	350	Each	48.87	17,104.50	CCX 971549
03-04-00334	size 7/8 inch x 1.8 m	0	350	0	350	Each	73.51	25,728.50	CCX 971549
03-04-00335	Column pipes for Grundfos vertical turbine pumps,				0			0.00	
03-04-00336	size 4.0 inch x 1.8 m	0	450	0	450	Each	99.33	44,698.50	CCX 972124
03-04-00337	size 5.0 inch x 1.8 m	0	130	0	130	Each	154.87	20,133.10	CCX 972124
03-04-00338	Impeller for Grundfos vertical turbine pumps,				0			0.00	
03-04-00339	size 3 x 5/8 inch	0	30	0	30	Each	18.20	546.00	
03-04-00340	size 3 x 3/4 inch	0	30	0	30	Each	16.83	504.90	
03-04-00341	size 4 x 3/4 inch	0	30	0	30	Each	12.83	384.90	
03-04-00342	size 4 x 7/8 inch	0	30	0	30	Each	16.83	504.90	
03-04-00343	Bottom column pipe complete with shaft, coupling and bearing with thread in bottom end,				0			0.00	
03-04-00344	size 3 x 5/8 inch	0	25	0	25	Each	131.41	3,285.25	CCX 972123
03-04-00345	size 3 x 3/4 inch	0	25	0	25	Each	145.12	3,628.00	CCX 972123
03-04-00346	size 4 x 3/4 inch	0	25	0	25	Each	167.46	4,186.50	CCX 972123
03-04-00347	size 4 x 7/8 inch	0	25	0	25	Each	194.68	4,867.00	CCX 972123
03-04-00348	Bowl assembly for	0		0	0			0.00	
03-04-00349	BP 27-15	0	25	0	25	Each	1,748.10	43,702.50	CCX 971549
03-04-00350	BP 45-12	0	25	0	25	Each	2,054.36	51,359.00	CCX 971549
03-04-00351	Top column pipe complete with shaft coupling, bearing and mechanical shaft seal				0			0.00	
03-04-00352	size 3 x 5/8 inch	0	20	0	20	Each	238.99	4,779.80	CCX 972123
03-04-00353	size 3 x 3/4 inch	0	20	0	20	Each	299.43	5,988.60	CCX 972123
03-04-00354	size 4 x 3/4 inch	0	20	0	20	Each	313.13	6,262.60	CCX 972123
03-04-00355	size 4 x 7/8 inch	0	20	0	20	Each	370.57	7,411.40	CCX 972123
03-04-00356	Diesel engine for operating vertical turbine pump complete set with clutch,							0.00	
03-04-00357	MWM D-301-1	1	0	0	1	Set	2,750.00	2,750.00	
03-04-00358	MWM D-302-2	2	0	0	2	Set	3,250.00	6,500.00	
03-04-00359	MWM D-303-3	2	0	0	2	Set	3,750.00	7,500.00	
03-04-00360	MWM D-327-4	1	0	0	1	Set	4,250.00	4,250.00	
	<b>Sub-total:</b>							<b>539,157.44</b>	
	<b>Primary Shipping Cost [12%]:</b>							<b>64,698.89</b>	
	<b>Levy [3%]:</b>							<b>16,174.72</b>	
	<b>Grand Total:</b>							<b>620,031.06</b>	

PPROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
7. Booster Pumps and Spare Parts									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in US\$	Ref
		Dhk	Erb	Sul					
03-04-00361	Centrifugal booster pump for pumping treated water. Q=390 cum/hr, H=320M. Directly coupled with electrical driven motor with star-delta connection and with control panel. V=400V, P=50Hz, 3P. With spare parts for two years operation, operation and maintenance manual in English, and spare parts catalogue. Packed suitable for sea and land transportation.	1	0	0	1	Set	68,000.00	68,000.00	
03-04-00362	Centrifugal multiVERTICAL booster pump for chlorination purpose. Q=4 cum/hr, H=120M. Directly coupled with electrical driven motor with star-delta connection and with control panel. V=380V, P=50Hz, 3P. With spare parts for two years operation, operation and maintenance manual in English, and spare parts catalogue. Packed suitable for sea and land transportation.	2	0.00	0	2	Set	8,000.00	16,000.00	
03-04-00363	Gland packing size 1/2 inch; pH 5-8.5 RPM = 2440 H = 80m		200.00	0	200	ML	4.38	876.00	CCX 972427
03-04-00364	Gland packing size 3/4 inch pH 5-8.5 RPM = 2440 H = 150m		500.00	0	500	ML	7.57	3,785.00	CCX 972427
03-04-00365	Gland packing size 3/8 inch pH 5-8.5. RPM = 2900, 20 bar		200.00	0	200	ML	7.50	1,500.00	
03-04-00366	Gland packing size 5/8 inch pH 5-8.5 RPM = 2440 H = 40m		50.00	0	50	ML	7.49	374.50	CCX 973893
03-04-00367	Booster pumps of different sizes and specifications*	8	0	0	8	Set	100,000.00	800,000.00	
03-04-00368	Centrifugal booster pumps*	0	0	12	12	Set	37,500.00	450,000.00	
03-04-00369	Spare parts for Ingersol pumps*	0	0	30	30	Set	4,000.00	120,000.00	
03-04-00370	Ball Bearing.*	0	0	1	1	Set	25,000.00	25,000.00	
	<b>Sub-total</b>							<b>1,485,535.</b>	
	<b>Primary Shipping Cost [12%]:</b>							<b>178,264.26</b>	
	<b>Levy [3%]:</b>							<b>44,566.07</b>	
	<b>Grand Total:</b>							<b>1,708,365. 83</b>	

\* Detailed Specifications will follow

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLY									
8. Electrical Equipment and Spares									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00371	Control panel for submersible motor with main switch, circuit breaker, illuminated selector switch, contactor, phase failure relay, timing relay, overload relay, fuse holder, autotransformer, ammeter and voltmeter, 380V, 50Hz, 3Ph. in addition to that single phase to neutral (220 V, 50Hz) must also be available for the control panel components such as ammeter, voltmeter, etc.								
03-04-00372	Capacity 22 Kw, 45 Amp	0	15	0	15	Each	1,528.48	22,927.20	CCX 971589
03-04-00373	Capacity 37 Kw, 72 Amp	0	15	0	15	Each	1,837.18	27,557.70	CCX 971589
03-04-00374	Control panel for star-delta motor with main switch, circuit breaker, illuminated selector switch, contactor, phase failure relay, timing relay, overload relay, fuse holder, autotransformer, ammeter and voltmeter, 380V, 50Hz, 3Ph.				0			0.00	95/1064
03-04-00375	Capacity 45 Kw	0	0	1	1	Each	3,000.00	3,000.00	
03-04-00376	Capacity 75 Kw	0	0	1	1	Each	5,000.00	5,000.00	
03-04-00377	Capacity 110 Kw	0	0	1	1	Each	5,000.00	5,000.00	
03-04-00378	Capacity 200 Kw	0	0	1	1	Each	6,000.00	6,000.00	
03-04-00379	Capacity 315 Kw	0	0	1	1	Each	7,000.00	7,000.00	
03-04-00380	Electrical transformer, type (TAA21) oil cooling 33/0.4 KV, 1,250 KVA & 50 Hz.	0	0	2	2	Each	14,000.00	28,000.00	
03-04-00381	Electrical transformer, type (TAA21) oil cooling 11/3.3 KV, 2000 KVA & 50 Hz.	0	0	2	2	Each	14,000.00	28,000.00	
03-04-00382	Automatic air-circuit breaker, MCCB, 500V, 50Hz & 3P				0			0.00	95/1081
03-04-00383	Capacity 800-1000 amps	0	0	3	3	Each	350.00	1,050.00	
03-04-00384	Capacity 80-100 amps	0	10	0	10	Each	51.63	516.30	CCX 972496
03-04-00385	Capacity 50-63 amps	0	15	0	15	Each	51.63	774.45	CCX 972496
03-04-00386	Capacity 30-40 amps	0	15	0	15	Each	51.63	774.45	CCX 972496
03-04-00387	Flexible electrical power cable for 400V				0			0.00	
03-04-00388	size 1x240 mm2	0	0	500	500	ML	9.30	4,650.00	CCX 972502
03-04-00389	size 1x150 mm2	0	0	500	500	ML	22.00	11,000.00	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLY									
8. Electrical Equipment and Spares									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00390	size 1x95 mm2	0	0	500	500	ML	16.00	8,000.00	
03-04-00391	size 1x50 mm2	0	0	500	500	ML	13.00	6,500.00	
03-04-00392	size 1x35 mm2	0	0	500	500	ML	10.00	5,000.00	
03-04-00393	size 1x25 mm2	0	0	500	500	ML	8.00	4,000.00	
03-04-00394	size 4x10 mm2	0	0	500	500	ML	12.00	6,000.00	
03-04-00395	size 4x16 mm2	0	0	500	500	ML	18.00	9,000.00	
03-04-00396	size 3x25+16 mm2	0	1,000	500	1500	ML	5.50	8,250.00	
03-04-00397	size 4x35 mm2 or (3x35+16mm2)	0	0	500	500	ML	23.00	11,500.00	
03-04-00398	size 4x50 mm2 or (3x50+25mm2)	0	0	500	500	ML	26.00	13,000.00	
03-04-00399	Oil for high tension transformers, 33/11KV and 11/0.4 KV	0	0	4000	4000	Litre	3.00	12,000.00	
03-04-00400	Electric contactors, 500V, 50 Hz, coil voltage 380V, SIEMENS Germany, type 3TF 46	0	0	2	2	Each	150.00	300.00	
03-04-00401	Same as above, type 3TF 48	0	0	2	2	Each	200.00	400.00	
03-04-00402	Same as above, type 3TF 50	0	0	2	2	Each	300.00	600.00	
03-04-00403	Same as above, type 3TF 52	0	0	2	2	Each	400.00	800.00	
03-04-00404	Same as above, type 3TF 54	0	6	2	8	Each	600.00	4,800.00	
03-04-00405	Same as above, type 3TF 56	0	8	2	10	Each	750.00	7,500.00	
03-04-00406	Same as above, type 3TF 68	0	0	2	2	Each	1,200.00	2,400.00	
03-04-00407	Agitator for water treatment plant. Motor type QU 100 L4 BA, 2.2KW, 1435 R.P.M, 380V with control panel, Gear type R/50, Rapp 17.67, MATR 57339 CV3, Eapp.ss1. ELECTRO AGITATOR, AFERFT 10/145, MATR 18926/CV3/380V, GIRAIIVTE O850, GIRT1 80 Italian	0	10	0	10	Set	2,500.00	25,000.00	
03-04-00408	Phase failure, three phase asymmetry and sequence relay, 380 V, 50 Hz. E. Dold u. Sohne KG Type BA 9041	0	250	0	250	Set	50.00	12,500.00	
03-04-00409	Electric transformer*	1	0	0	1	Set	150000	150000	
03-04-00410	Control Panel*	1	0	0	1	Set	22500	22500	
03-04-00411	Self-amulgating electrical tape 19mm x 10m. for high tension voltage-moister resistant, ozone resistant	0	0	100	100	Each	3	300.00	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLY									
8. Electrical Equipment and Spares									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00412	Insulating tape, low voltage, 19mm x 33m	0	0	100	100	Each	2	200.00	
03-04-00413	Shrinkable terminations (12,000V) three core for cable size (50-95)mm, 60 cm long	0	0	20	20	Set	100	2,000.00	
03-04-00414	Shrinkable terminations (36,000V) three core for cable size (95-150)mm, 120 cm long	0	0	10	10	Set	150	1,500.00	
	<b>Total</b>							<b>465,300.10</b>	
	<b>Primary Shipping Cost [12%]:</b>							<b>55,836.01</b>	
	<b>Levy [3%]:</b>							<b>13,959.00</b>	
	<b>Grand Total:</b>							<b>535,095.12</b>	

\* Detailed specifications will follow.

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
9. Generators and Spares									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul					
03-04-00415	Diesel generator complete set with control panel board consisting of automatic main failure switch, change-over switch, voltmeter, ammeter, hour meter, phase selector switch, frequency meter, starting key, high temperature warning, low oil pressure warning, low fuel warning and with 12 V electric starting system with battery, battery charger and voltage regulator, and with fresh waterloop cooling system, heavy duty air filter, cartridge oil and fuel filter, speed governor, silencer, exhaust flexible piping and with fuel tank to run 8 hours continuously and suitable for continuous operation. Maximum output power 2500 KVA, 400V, 3Ph and 50Hz. 50 deg C max; and 1,200 m max alt. The engine and alternator coupled by elastic joint and mounted on a common bed-frame with anti-vibration mountings and lifting eyes with complete tool-kit set. Supplies with O&M manual and spare parts catalogue in English. With spare parts for 2 years normal operation. Packed in wooden case suitable for sea and land transportation. Altitude 1200 m above sea level and max temperature 50 degree centigrade	0	1	0	1	Set	225,000.00	225,000.00	93/0352
03-04-00416	Same as above, capacity 40 KVA.	0	0	4	4	Set	10,000.00	40,000.00	
03-04-00417	Same as above, capacity 250 KVA.	0	0	3	3	Set	30,000.00	90,000.00	
03-04-00418	Same as above, capacity 100 KVA.	0	0	1	1	Set	20,000.00	20,000.00	
	<b>Sub-total:</b>							<b>375,000.00</b>	
	<b>Primary Shipping cost [12%]:</b>							<b>45,000.00</b>	
	<b>Levy [3%]:</b>							<b>11,250.00</b>	
	<b>Grand Total:</b>							<b>431,250.00</b>	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
10. Tools and Accessories									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00419	Tools set for mechanical work	0	0	10	10	Set	150.00	1,500.00	

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
10. Tools and Accessories									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00420	Tools set for electrical work	0	0	10	10	Set	150.00	1,500.00	
03-04-00421	Rock drill breaker, for breaking and drilling of concrete, stone, brickwork, cutting and breaking asphalt; built-in air compressor for drilling, operated by air-cooled two-stroke petrol engine. Blow impact 40J; percussion rate, blow per minute 2700-3000; drilling capacity 90 mm diameter; and air compressor capacity 190 l/min. With spare parts for 2 years normal operation, O&M manual and spare parts	0	0	1	1	Set	3,741.53	3,741.53	CCX 972338
03-04-00422	Rock drill accessories set, 7 rock drill tools consisting of 350mm. pointed chisel, 450mm pointed chisel, 350mm plain chisel 75mm width and 360mm length, plain chisel 100mm width and 370 mm length, plain spade and 200mm width 420mm length, wide spade (reference No. A0402006)	0	0	1	1	set	281.18	281.18	CCX 972338
03-04-00423	Welding machine operated by diesel engine, mobile on solid rubber wheels, air cooled, overload protection, maximum capacity 60A, with all standard accessories. 50 deg C max; 1,200 m altitude max.	0	0	2	2	Set	2,471.90	4,943.80	
03-04-00424	Welding machine operated by diesel engine, mobile on solid rubber wheels, overload protection, maximum capacity 350A, with all standard accessories. 50 deg C max; 1,200 m altitude max.	0	0	1	1	Set	4,696.60	4,696.60	
03-04-00425	Portable lubricating pump, hand-operated level type for dispensing lubricating oil or soft grease, consisting of a container fitted with carrying handle and strong foot-plate, with 2 M high pressure delivery hose and hydraulic connector. Capacity 16 litres and pressure 250 bar (reference number A1205017)	0	0	4	4	Set	210.61	842.44	CCX 972081

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES									
10. Tools and Accessories									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref
		Dhk	Erb	Sul					
03-04-00426	Grease for all mechanical parts, type C3 or SHELL-ALVANIA R3 or R2, company: Shell company, USA	0	0	600	600	Kg	2.95	1,770.00	CCX 973540
03-04-00427	Portable pipe cutting machine			2	2	Each	500.00	1,000.00	
03-04-00428	Pipe Wrench Size 200mm			10	10	Each	10.80	108.00	
03-04-00429	Pipe Wrench Size 250mm			20	20	Each	13.50	270.00	
03-04-00430	Pipe Wrench Size 350mm			20	20	Each	18.00	360.00	
03-04-00431	Pipe Wrench Size 460mm			20	20	Each	40.00	800.00	
	<b>Sub-Total:</b>							<b>21,813.55</b>	
	<b>Primary Shipping Cost [12%]:</b>							<b>2,617.63</b>	
	<b>Levy [3%]:</b>							<b>654.41</b>	
	<b>Grand Total:</b>							<b>25,085.58</b>	

PROJECT 2: URBAN AND SEMI-URBAN SANITATION									
11. Sanitation Vehicles and Spares									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref.
		Dhk	Erb	Sul					
03-04-00432	Tyre with internal tube, size 1100x20 for HINO type tankers and trucks.	160	80	150	390	Each	215.08	83,881.20	CJX 970357
03-04-00433	Tyre with internal tube, size 1200x20 for tip trucks, type Scania.	30	10	36	76	Each	240.62	18,287.12	CJX 970357
03-04-00434	Tyre with internal tube, size 1200x24 for tip trucks, type Scania/ Volvo.	80	10	40	130	Each	258.47	33,601.10	CJX 970357
03-04-00435	Tyre with internal tube, size 1300x24 for grader, type Caterpillar.	30	10	30	70	Each	288.51	20,195.70	CJX 970357
03-04-00436	Tyre with internal tube, size 1400x24 for grader.	10	10	12	32	Each	354.47	11,343.04	CJX 970359
03-04-00437	Tyre with internal tube, size 17.5x25 for shovel, type Kawaski	24	8	12	44	Each	403.92	17,772.48	CJX 970357
03-04-00438	Tyre with internal tube, size 20.5x25 for Caterpillar shovel.	12	0	30	42	Each	767.54	32,236.68	CJX 970359
03-04-00439	Tyre with internal tube, size 16x750 for tractor.	0	25	10	35	Each	45.07	1,577.45	CJX 970359
03-04-00440	Tyre with internal tube, size 15x750 for tractor.	0	25	8	33	Each	71.11	2,346.63	CJX 970359
03-04-00441	Tyre with internal tube, size 14x650 for pick-up.	0	0	10	10	Each	36.46	364.60	CJX 970359
03-04-00442	Tyre with internal tube, size 900x20 for FAUN road cleaner.	30	0	20	50	Each	171.12	8,556.00	CJX 970359
03-04-00443	Tyre with internal tube, size 9x600 for two MTN fork lifter	4	8	10	22	Each	73.31	1,612.82	CJX 970347
03-04-00444	Tyre with internal tube, size 15x9-28 for two MTN fork lifter	8	0	12	20	Each	250.00	5,000.00	
03-04-00445	Tyre with internal tube, size 16.9/14 x 28 for Anter tractor	30	0	10	40	Each	303.17	12,126.80	CJX 970357
03-04-00446	Batteries, size 12x19x150 Amp-hour for HINO tankers and trucks.	20	80	80	180	Each	86.06	15,490.80	CCX 971937
03-04-00447	Batteries, size 12x19x135 Amp-hour for shovel and bulldozer.	100	50	80	230	Each	73.95	17,008.50	CCX 971937

PROJECT 2: URBAN AND SEMI-URBAN SANITATION									
11. Sanitation Vehicles and Spares									
Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref.
		Dhk	Erb	Sul					
03-04-00448	Batteries, size 12x19x90 Amp-hour for tractor and compressor.	20	25	80	125	Each	52.34	6,542.50	CCX 971937
03-04-00449	Batteries, size 12x11x60 Amp-hour for pick-up and landcrusor.	12	10	25	47	Each	26.82	1,260.54	CCX 971937
03-04-00450	Spare parts for HINO garbage collectors. Type:HINO KB 1980; KB 422 - 11802; EB 300 - 54123. Company: Morita Tokushu Kiko Co. Ltd., Osaka, Japan.*		1		1	Set	30,000.00	30,000.00	95/1168
03-04-00451	Spare parts for VOLVO trucks type N10 engine No. 149217*	1	0		1	Set	25,000.00	25,000.00	
03-04-00452	Garbage Collector, SCANIA	4	10	8	22	Unit	60,000.00	1,320,000.00	95/1168
03-04-00453	Sewerage tanker (cesspit emptier),SCANIA		2		2	Unit	86,350.00	172,700.00	95/1168
03-04-00454	Dumper with half cubic meter bucket, French made or equivalent, 15HP, with two years spare parts	8	40		48	Each	5,000.00	240,000.00	
03-04-00455	Mobile workshop, for maintaining and repairing sanitation vehicles, complete with repairing tools, TOYOTA	3	2	3	8	Set	45,000.00	360,000.00	
03-04-00456	Fork Lifter, 3 ton capacity	2	0		2	Set	2,400.00	4,800.00	
03-04-00457	Maintenance tools.*	2	0	2	4	Set	20,000.00	80,000.00	
03-04-00458	Pickup double cabin, TOYOTA, as per Saudi Arabia Specifications	0	0	5	5	Set	60,000.00	300,000.00	
03-04-00459	Pickup single cabin, TOYOTA, as per Saudi Arabia Specifications	0	0	2	2	Set	20,000.00	40,000.00	
03-04-00460	Tractor with trailor				15	Set	20,000.00	100,000.00	
03-04-00461	Spar parts for Sanitary vehicles*	0	0	1	1	Set	500,000.00	500,000.00	
03-04-00462	Land cruiser, TOYOTA, as per Saudi Arabia Specifications	0	0	2	2	Set	40,000.00	80,000.00	
	<b>Sub-total:</b>							<b>3,541,703.96</b>	
	<b>Primary Shipping Cost [12%]:</b>							<b>425,004.48</b>	
	<b>Levy [3%]:</b>							<b>106,251.12</b>	
	<b>Grand Total:</b>							<b>4,072,959.56</b>	

\* Detailed specifications will follow.

## PROJECT 2: URBAN AND SEMI-URBAN SANITATION

## 12. Other Materials

Code	Description	Quantity			Total	Unit	Unit price in US\$	Total price in USD	Ref.
		Dhk	Erbil	Sul					
03-04-00463	Household, disposable, nylon garbage containers, capacity 0.25 Cub.M, 15 Kg	0	1,000,000	600000	1600000	Each	0.20	320,000.00	
03-04-00464	Theodolight type [wild T16], with the tripod	0	2	0	2	Each	6,000.00	12,000.00	
03-04-00465	Theodolight type [Wild T2], with the tripod	0	2	0	2	Set	4,500.00	9,000.00	
03-04-00466	Paper for photocopying and typing, A4 size (210x297 mm) (43-256-08)	0	100	0	100	Ream	3.10	310.00	
03-04-00467	Distance meter type AGA or D14L with the pointers	0	2	0	2	Each	108.69	217.38	
03-04-00468	Engineering drawing board, Hydraulic type	0	2	0	2	Each	350.00	700.00	
03-04-00469	Battery charger for charging the Distance meter instrument	0	1	0	1	Each	250.00	250.00	
03-04-00470	Maps coping instrument [Plotter]	0	1	0	1	Each	10,000.00	10,000.00	
03-04-00471	Leveling instrument type [Na2 Wild] or [NaK2], with the tripod	0	2	2	4	Each	4,000.00	16,000.00	
03-04-00472	Photo Copier Machine type [Canon]	0	1	0	1	Each	5,000.00	5,000.00	
03-04-00473	Lap-top computer, TOSHIBA Satelite				3	Set	1,800.00	3,600.00	
03-04-00474	Laser Jet Printer, HP 6P				8	Set	1,200.00	9,600.00	
03-04-00475	Pickup, TOYOTA	2	0	0	2	Set	13,000.00	26,000.00	
03-04-00476	Electro-optical distant meter	0	0	2	2	Set	4,500.00	9,000.00	
03-04-00477	Desk top Computer, Pentium 300 with CD drive	0	0	4	4	Set	1,800.00	7,200.00	
03-04-00478	Heavy duty photocopier, CANON 6062	0	0	1	1	Set	12,100.00	12,100.00	
	<b>Sub-total</b>							<b>440,977.38</b>	
	<b>Primary Shipping Cost [12%]</b>							<b>52,917.29</b>	
	<b>Levy [3%]</b>							<b>13,229.32</b>	
	<b>Grand Total</b>							<b>507,123.99</b>	

## MATERIALS FOR RURAL WATER AND SANITATION PROJECTS

## 13. METAL PIPES AND FITTINGS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
03-04-00479	UNICEF Commodity Code: 412713 GI pipe for drinking water supply, to be of mild steel, medium series standard, longitudinally welded, (high induction frequency welding), hot dipped galvanized and passivated. Each pipe to be hydro tested or tested as per Current method. To be manufactured as per ISO 65-1981. Both ends male threaded to ISO 7, socked one end (female threaded socket), duly galvanized and chamfered, and the other end protected with a HDPE threaded protector, covering entire thread of pipe, male threads to be protected with anti-rust zinc aluminum paste, socket threads to be protected with anti-rust varnish. Pipe/Socket to adequately zinc coated to satisfy copper sulfate test as prescribed in Appendix A of BSI 387 / 67 or equivalent ISO standard. Steel, zinc, Anti-rust paste and varnish to be made from Food Grads material. Pipe length (excluding socket length): 5.8 meters. Nominal diameter: ND 4.0 inch. <b>PN 25</b>	895	600	0	1495	Each	34.74	51936.3	CCX980186
03-04-00480	UNICEF Commodity Code: 412713 As item 1, but ND 3.0 inch.	1110	0	0	1110	Each	24.44	27128.4	CCX980186
03-04-00481	UNICEF Commodity Code: 412713 As item 1, but ND 2.5 inch.	2483	0	0	2483	Each	18.72	46481.76	CCX980186
03-04-00482	UNICEF Commodity Code: 412713 As item 1, but ND 2.0 inch.	0	1000	7000	1700	Each	14.77	25109	CCX980186
03-04-00483	UNICEF Commodity Code: 412713 As item 1, but ND 1.5 inch.	3888	1000	28000	32888	Each	10.87	357492.56	CCX980186
03-04-00484	UNICEF Commodity Code: 412713 As item 1, but ND 1.0 inch.	0	1000	4500	5500	Each	7.38	40590	CCX980186
03-04-00485	UNICEF Commodity Code: 412713 As item 1, but ND 0.75 inch.	1290	3000	2000	6290	Each	4.78	30066.2	CCX980186
03-04-00486	UNICEF Commodity Code: 412832 Brass gate valve set with hand wheel, clockwise closing, Fx F. <b>PN 25</b>				0			0	CCX980360
	UNICEF Commodity Code: 412832, size 0.75 inch.	0	50	100	150	Each	1.4	210	
	UNICEF Commodity Code: 412832, size 1.0 inch.	0	50	100	150	Each	1.92	288	
	UNICEF Commodity Code: 412832, size 1.5 inch.	20	100	300	420	Each	3.56	1495.2	
	UNICEF Commodity Code: 412832, size 2.0 inch.	30	100	200	330	Each	5.41	1785.3	
	UNICEF Commodity Code: 412832, size 2.5 inch.	35	75	78	188	Each	10.64	2000.32	

## 13. METAL PIPES AND FITTINGS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
	UNICEF Commodity Code: 412832, size 3.0 inch.	35	50	50	135	Each	13.38	1806.3	
	UNICEF Commodity Code: 412832, size 4.0 inch.	60	50	30	140	Each	24.03	3364.2	
	UNICEF Commodity Code: 412832, size 6.0 inch.	20	200	0	220	Each	50	11000	
03-04-00487	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal elbows for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), 90 degree, FxF. <b>PN 25</b>							0	CCX98036 2
	UNICEF Commodity Code: 412837, size 0.75 inch.				4560	Each	0.37	1554	
	UNICEF Commodity Code: 412837, size 1.0 inch.	1200	150	500	1850	Each	0.47	869.5	
	UNICEF Commodity Code: 412837, size 1.5 inch.	150	100	1,000	1250	Each	0.99	1237.5	
	UNICEF Commodity Code: 412837, size 2.0 inch.				1032	Each	1.66	1660	
	UNICEF Commodity Code: 412837, size 2.5 inch.	150	25	400	575	Each	2.9	1667.5	
	UNICEF Commodity Code: 412837, size 3.0 inch.	130	25	100	255	Each	3.96	1009.8	
	UNICEF Commodity Code: 412837, size 4.0 inch.				516	Each	7.5	2625	
03-04-00488	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal elbows for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), 45 degree, FxF. <b>PN 25</b>				0			0	
	UNICEF Commodity Code: 412837, size 1.0 inch.	10	25	0	35	Each	0.69	24.15	
	UNICEF Commodity Code: 412837, size 1.5 inch.	10	25	0	35	Each	1.45	50.75	
	UNICEF Commodity Code: 412837, size 2.0 inch.	10	25	0	35	Each	2.42	84.7	
	UNICEF Commodity Code: 412837, size 2.5 inch.	8	25	0	33	Each	4.22	139.2	
	UNICEF Commodity Code: 412837, size 3.0 inch.	20	25	0	45	Each	5.77	259.65	
	UNICEF Commodity Code: 412837, size 4.0 inch.	25	25	0	50	Each	10.99	549.5	

## 13. METAL PIPES AND FITTINGS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
03-04-00489	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal T-joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxFx. <b>PN 25</b>				0			0	CCX98036 2
	UNICEF Commodity Code: 412837, size 0.75 inch.	800	100	0	900	Each	0.47	423	
	UNICEF Commodity Code: 412837, size 1.0 inch.	750	150	0	900	Each	0.66	594	
	UNICEF Commodity Code: 412837, size 1.5 inch.	450	150	950	1550	Each	1.4	2170	
	UNICEF Commodity Code: 412837, size 2.0 inch.	200	150	300	650	Each	2.2	1430	
	UNICEF Commodity Code: 412837, size 2.5 inch.				350	Each	3.64	1092	
	UNICEF Commodity Code: 412837, size 3.0 inch.	150	150	0	300	Each	4.87	1461	
	UNICEF Commodity Code: 412837, size 4.0 inch.				316	Each	10.06	2515	
03-04-00490	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal unions for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. <b>PN 25</b>				0			0	CCX98036 2
	UNICEF Commodity Code: 412837, size 0.75 inch.	850	75	1000	1925	Each	0.93	1790.25	
	UNICEF Commodity Code: 412837, size 1.0 inch.	750	150	660	1560	Each	1.17	1825.2	
	UNICEF Commodity Code: 412837, size 1.5 inch.	650	200	526	1376	Each	2.08	2862.08	
	UNICEF Commodity Code: 412837, size 2.0 inch.	650	125	660	1435	Each	2.57	3687.95	
	UNICEF Commodity Code: 412837, size 2.5 inch.	500	150	460	1110	Each	4.70	5217	
	UNICEF Commodity Code: 412837, size 3.0 inch.	350	100	210	660	Each	6.97	4600.2	
	UNICEF Commodity Code: 412837, size 4.0 inch.	300	100	130	530	Each	10.40	5512	
03-04-00491	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal nipples (hexagonal or parallel) for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), MxM. <b>PN 25</b>				0			0	CCX98036 2
	UNICEF Commodity Code: 412837, size 0.75 inch.	1000	100	0	1100	Each	0.29	319	

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Distribution Plan - Phase V

## 13. METAL PIPES AND FITTINGS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
	UNICEF Commodity Code: 412837, size 1.0 inch.	800	150	0	950	Each	0.45	427.5	
	UNICEF Commodity Code: 412837, size 1.5 inch.	400	100	1000	1500	Each	0.87	1305	
	UNICEF Commodity Code: 412837, size 2.0 inch.	300	100	1,000	1400	Each	1.36	1904	
	UNICEF Commodity Code: 412837, size 2.5 inch.	300	100	300	700	Each	1.80	1260	
	UNICEF Commodity Code: 412837, size 3.0 inch.	250	50	0	300	Each	2.98	894	
	UNICEF Commodity Code: 412837, size 4.0 inch.	250	50	0	300	Each	5.82	1746	
03-04-00492	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal sockets for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. <b>PN 25</b>				0			0	CCX98036 2
	UNICEF Commodity Code: 412837, size 0.75 inch.	80	500	0	580	Each	0.29	168.2	
	UNICEF Commodity Code: 412837, size 1.0 inch.	75	150	0	225	Each	0.38	85.5	
	UNICEF Commodity Code: 412837, size 1.5 inch.	50	120	0	170	Each	0.71	120.7	
	UNICEF Commodity Code: 412837, size 2.0 inch.	25	120	0	145	Each	1.10	159.5	
	UNICEF Commodity Code: 412837, size 2.5 inch.	10	100	0	110	Each	1.88	206.8	
	UNICEF Commodity Code: 412837, size 3.0 inch.	20	100	0	120	Each	2.58	309.6	
	UNICEF Commodity Code: 412837, size 4.0 inch.	20	50	0	70	Each	4.44	310.8	
03-04-00493	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized reducer joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF. <b>PN 25</b>				0			0	CCX98036 2
	size 4.0x3.0 inch.	100	20	30	150	Each	4.80	720	
	size 4.0x2.5 inch.	80	20	50	150	Each	4.74	711	
	size 4.0x2.0 inch.	60	20	50	130	Each	4.46	579.8	
	size 3.0x2.5 inch.	60	30	50	140	Each	2.7	378	
	size 3.0x2.0 inch.	60	100	150	310	Each	2.65	821.5	
	size 3.0x1.5 inch.	70	100	150	320	Each	2.62	838.4	

Amended 17 March 99

Distribution Plan - Phase V

## 13. METAL PIPES AND FITTINGS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
	size 3.0x1.0 inch.	75	100	100	275	Each	2.58	709.5	
	size 2.5x2.0 inch.	180	100	200	480	Each	2.00	960	
	size 2.5x1.5 inch.	85	100	200	385	Each	1.95	750.75	
	size 2.5x1.0 inch.	85	50	100	235	Each	1.92	451.2	
	size 2.5x0.75 inch				466	Each	1.88	658	
	size 2.0x1.5 inch.	85	20	265	370	Each	1.14	421.8	
	s2.0x1.0 inch.	90	200	200	490	Each	1.12	412.09	
	size 2.0x0.75 inch.	90	200	0	290	Each	1.10	319	
	size 1.5x1.0 inch.	180	300	200	680	Each	0.72	489.6	
	size 1.5x0.75 inch.	300	250	0	550	Each	0.71	390.5	
	size 1.0x0.75 inch.	850	300	0	1150	Each	0.38	437	
03-04-00494	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized end plugs for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7). Male type. <b>PN 25</b>				0			0	CCX98036 2
	UNICEF Commodity Code: 412837, size 0.75 inch.	100	50	0	150	Each	0.27	40.5	
	UNICEF Commodity Code: 412837, size 1.0 inch.	30	30	0	60	Each	0.30	18	
	UNICEF Commodity Code: 412837, size 1.5 inch.	25	20	0	45	Each	0.76	34.2	
	UNICEF Commodity Code: 412837, size 2.0 inch.	25	50	0	75	Each	1.10	82.5	
	UNICEF Commodity Code: 412837, size 2.5 inch.	20	50	0	70	Each	1.36	95.2	
	UNICEF Commodity Code: 412837, size 3.0 inch.	10	30	0	40	Each	2.25	90	
	UNICEF Commodity Code: 412837, size 4.0 inch.	5	30	0	35	Each	3.75	131.25	
03-04-00495	UNICEF Commodity Code: 412832 Brass non return valve, FxF. <b>PN 25</b>				0			0	CCX98036 0
	UNICEF Commodity Code: 412832, size 1.5 inch.	15	150	0	165	Each	4.02	663.3	
	UNICEF Commodity Code: 412832, size 2.0 inch.	15	100	0	115	Each	5.66	650.9	
	UNICEF Commodity Code: 412832, size 2.5 inch.	10	20	25	55	Each	16.21	891.55	

## 13. METAL PIPES AND FITTINGS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
	UNICEF Commodity Code: 412832, size 3.0 inch.	10	20	25	55	Each	20.03	1101.65	
	UNICEF Commodity Code: 412832, size 4.0 inch.	10	10	20	40	Each	33.15	1326	
03-04-00496	UNICEF Commodity Code: 432400 Water tap, brass, with T-handle and threaded as per ISO R7, size 20 mm (3/4 inch). <b>PN 10</b>	600	1000	800	2400	Each	2.71	6504	CCX980360
03-04-00497	UNICEF Commodity Code: 412829 Teflon pipe joint tape, 15 mm (1/2 inch) width, non-toxic, safe for water lines, supplied on plastic snap-cover spool, 600 inch long and 0.003 inch thick.	1000	150	250	1400	Each	0.2	280	CCX980360
03-04-00498	Polypropylene membrane (Geotextile Terram 1000 or equivalent)	0	50	0	50	M2	1.5	75	
03-04-00499	Water stop, Bitumized	0	5	0	5	Ton	250	1250	
03-04-00500	Brass foot valve, FxF. PN 25, size 4 inch	10	50	100	160	Each	33.15	5304	
03-04-00501	Same as item 22, size 3 inch	10	100	120	230	Each	20.03	4606.9	
03-04-00502	Same as item 22, size 2.5 inch	10	100	120	230	Each	16.21	3728.3	
03-04-00503	Same as item 22, size 2.0 inch	10	150	200	360	Each	5.66	2037.6	
03-04-00504	Same as item 22, size 1.5 inch	10	200	300	510	Each	4.02	2050.2	
03-04-00505	Same as item 22, size 1.0 inch	10	200	150	360	Each	3.5	1260	
Sub-total:								699075.3	
Primary shipping costs [12%]:								83889.04	
levy [3%]:								20972.3	
Grand Total:								782964.3	

## MATERIALS FOR RURAL WATER AND SANITATION PROJECTS

## 14. CONSTRUCTION AND SANITARY MATERIALS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dohuk	Erbil	Sulai	Total				
03-04-00506	Ordinary Portland cement packed in 5-ply 50 kg paper bags (equivalent to BS12).	300	500	2000	2800	Ton	38.74	108472	
03-04-00507	UNICEF Commodity Code: 421931 Mild steel deformed reinforcing bars in 6 meter length (+/- 100 mm), commercial grade tensile strength: 42.5-53.5 Kg/mm <sup>2</sup> in bundles of 1 MT. size: Dia 10 mm : average weight 0.617 Kg/m	0	0	30	30	Ton	311	9330	CCX 971436
03-04-00508	Same as item 2, size 12 mm dia.	10	30	200	240	Ton	311	74640	CCX 971436
03-04-00509	Same as item 2, size 16 mm dia.	4	30	70	104	Ton	311	32344	CCX 972054
03-04-00510	Mild steel binding wire, 2 mm diameter, fully annealed, used to tie reinforcing bars for concrete work, supplied in coils of 50 kg (approx).	0	0.5	0.5	1	Ton	600	600	
03-04-00511	Concrete blocks of size 20x20x40 cm (to be procured locally)	80	150	670	900	1000 Each	250	225000	
03-04-00512	Steel door with door frame for latrine of size 0.9x1.90 metres (to be locally procured).	200	200	1600	2000	Each	30	60000	
03-04-00513	50x50 mm angle iron, mild steel, of 6 metres length.	0	150	0	150	Each	9.28	1392	
03-04-00514	Cast iron manhole cover, standard quality, size 0.5x0.5 metres to be procured off shore.	150	150	400	700	Each	15	10500	
03-04-00515	Cast iron manhole cover, size 0.3x0.3 metres (to be procured off shore).	950	150	1000	2100	Each	10	21000	
03-04-00516	Mud bricks, size 7x11x22 mm (to be locally procured).	200	25	400	625	1000 Each	50	31250	
03-04-00517	Squatting FRP latrine pan with P-trap of standard design with 20 mm water seal, material: specification: as per IS 11246-1985 or equivalent.	0	1500	0	1500	Each	10	15000	
03-04-00518	PVC pipes for sanitary purposes with spigot and socket type suitable for solvent cement joining, with ends protection. Size 110 mm OD, 5.8 length and 5-6 bar. Supplied with solvent cement of ¼ litre for every 50 pipes.	0	300	2500	2800	Each	11.54	32312	
03-04-00519	UNICEF Commodity Code:421932, Roofing Sheet, steel corrugated, galvanized, low carbon steel, lengthwise sinus sendzimir process, commercial prime quality. - Zinc Coated on both sides 275 G/M <sup>2</sup> - 11 Corrugations 16 X 76 MM - 20 Gauge B.G. (0.26MM) before galvanizing - Overall width 900 MM - Sheet length 2000 MM Packed in bundles of 100 sheets, export packed, covered with thick plastic, steel enveloped, banded on two wooden skids.	0	500	0	500	Each	7.50	3750	CCX 92A184
03-04-00520	Cast Iron Manhole cover, size 0.7 x0.7 to procured offshore	0	0	674	674	Each	20	13480	
Sub-total:								639070	
Primary shipping Costs [12%]:								76688.4	
Levy [3%]:								19172.1	
Grand Total:								734930.5	

## MATERIALS FOR RURAL WATER AND SANITATION PROJECTS

## 15. PUMPS AND SPARE PARTS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul	Total				
03-04-00521	UNICEF Commodity Code: 432271 Diesel driven centrifugal pumping system, altitude 1200 m								
	Capacity 10 m <sup>3</sup> /hr at 40 meter head	0	0	0	0	Set	2,004.00	0	CCX980526
	Capacity 10 m <sup>3</sup> /hr at 60 meters head.	5	0	0	5	Set	3,186.00	15,930	CCX980526
	Capacity 10 m <sup>3</sup> /hr at 80 meters head.	6	0	0	6	Set	4,336.00	26016	CCX980526
	Capacity 10 m <sup>3</sup> /hr at 120 meters head.	4	20	0	24	Set	5,000.00	120,000	
03-04-00522	UNICEF Commodity Code: 432287 Submersible pump type SP16-22, incl 6" motor 11KW, 3x380/415V, 50HZ motor cable with direct coupled electrical motor and with non-return valve, control panel complete set, 150 M three core cable; suitable for control panel, tail cable and cable terminal kit; Q=10 cum/hr (min), head=180 (max), 380V, 50Hz and 3Ph for 6 inch cased borewell. To be installed on new borewells.	15	10	0	25	Set	3,784.32	94,608	CCX980619
03-04-00523	UNICEF Commodity Code: 432287 Same as item 2, submersible pump type SP27-15, inch 1 6" motor, Discharge 3"BSP, Q=25 cum/hr (min) and head = 120 M (max). For 6 inch cased borewell. To be installed on new borewells.	13	4	0	17	Set	5,000.00	85,000	CCX980629
03-04-00524	UNICEF Commodity Code: 432287 Same as item 2, submersible pump type SP8A-21, inch 1 6" motor, Discharge 3"BSP, Q=2 cum/hr (min) and head = 115 M (max). For 8 inch cased borewell. To be installed on new borewells.				7	Set	2,500	5,000	
03-04-00525	UNICEF Commodity Code: 432253 NEMitsas 3"x3" Deep well turbine pump operating at 2700 RPM for pumping clean water to fit in a 8 inch bore well, Q=10 cum/hr and head = 120 M at 1,200 metres altitude/elevation, 50 deg centigrade complete set with pump head, discharge flange, right angle gear drive connected to engine by universal shaft. Air or water cooled diesel engine unit with industrial clutch, electric starter, heavy duty oil bath, air cleaner, speed governor, silencer exhaust pipe, mounted fuel tank, with column pipes and line shafts, foot valve with strainer, water level indicator, tool-kit, spare parts for 2 years operation, O&M manual in English and spare parts catalogue with appropriate seaworthy packing. Please note that temperatures in summer exceeds 50 degree Celsius and reaches -15 degree Celsius in winter.	10	5	4	19	Set	8,689.00	165,091	CCX974419
03-04-00526	Air or water cooled diesel engine prime mover for deep well turbine pump suitable for connection via universal shaft. With industrial clutch, electric sarter, heavy duty oil bath, air cleaner, speed governor, silencer exhaust pipe, mounted fuel tank. Pleasnote that temperatures in summer exceeds 50 degree Celsius and reaches -15 degree Celsius in winter	4	4	10	18	Set	800	14,400	
03-04-00527	UNICEF Commodity Code: 432287 Franklin Electric Motor set for Grundfos submersible pumps with tail cable and cable joint and control panel. 400V, 50HZ, 3 PH.				0			0	CCX974417
	Capacity 5.5 Kw for 6 inch bore well, Type SP 60-3	2	2	0	4	Set	453.97	1815.88	

## 15. PUMPS AND SPARE PARTS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul	Total				
	Capacity 7.5 Kw for 6 inch bore well, Type SP 27-8	2	2	0	4	Set	540	2160	
	Capacity 11 Kw for 6 inch bore well, Type SP 27-14	2	2	0	4	Set	540	2160	
	Capacity 15 Kw for 6 inch bore well, Type SP 25-15	2	2	0	4	Set	632	2528	
	Capacity 22 Kw for 6 inch bore well, Type SP 27-28	2	1	0	3	Set	819	2457	
	Capacity 30 Kw for 8 inch bore well, Type SP 45-21	2	1	0	3	Set	1,679	5037	
	Capacity 37 Kw for 8 inch bore well, Type SP 45-31	2	1	0	3	Set	1,844	5532	
03-04-00528	UNICEF Commodity Code: 432000 Vertical Electric Motor, squirrel cage motor, complete set, from 15 to 45 degree Celsius maximum with relative humidity < 90%, for maximum altitude 1000m, for Grundfos vertical turbine pumps, 380V, 50HZ, 3PH, 2900-3000 RPM, insulation class F, speed 2 poles, protection degree IP55				0			0	CCX980789
	capacity 15 KW	3	2	0	5	Each	500	2,500	
	capacity 22 KW	3	2	0	5	Each	750	3,750	
	capacity 30 KW	3	2	0	5	Each	1,000	5000	
03-04-00529	UNICEF Commodity Code: 432254 Right angle gear for Grundfos vertical turbine pumps,				0			0	CCX974410
	Type 2GS25/3GS26 for 20 HP	2	3	0	5	Each	1,012	5060	
	Type 2GS45/3GS46 for 40 HP	2	3	0	5	Each	1,792	8960	
03-04-00530	UNICEF Commodity Code: 432287 Pump discharge head, complete set for Grundfos pump types consisting of pump head, gasket, bolt & nut, stay bolts, nuts and pipe plug				0			0	95/1065
	for BP27-15 (3 inch discharge)	2	3	0	5	Each	538.30	2691.5	
	for BP27-12 (3 inch discharge)	2	3	0	5	Each	538.30	2691.5	
	for BP45-7 (4 inch discharge)	2	3	0	5	Each	541.98	2709.9	
03-04-00531	UNICEF Commodity Code: 432254 Column bearing with vulcanized rubber outer sleeve and rubber linings with bushes of synthetic material for Grundfos vertical turbine pumps,				0			0	CCX974410
	size 3 x 5/8 inch	50	200	0	250	Each	14.60	3650	
	size 3 x 3/4 inch	50	200	0	250	Each	14.40	3600	
	size 4 x 3/4 inch	50	150	0	200	Each	15.90	3180	
	size 4 x 7/8 inch	50	70	0	120	Each	18.80	2256	
	size 5 x 7/8 inch	50	70	0	120	Each	19.00	2280	
	size 5 x 1 inch	50	50	0	100	Each	20.00	2000	
03-04-00532	Foot valve 1.5 inch, BS 21 thread	10	10	15	35	Set	15.00	525	
03-04-00533	Foot valve 2.0 inch, BS 21 thread	10	10	12	32	Set	17.00	544	
03-04-00534	Shallow well suction type hand pump (modified Nipal Bangladih No. 6), cast iron complete set for lifting water from shallow well of depth not exceeding 7 metre with foot valve and spare parts for 2 years operation.	0	50	50	100	Set	80	8000	
-Sub-total:								607132.78	
Primary shipping costs [12%]:								72855.93	
Levy [3%]:								18213.98	
Grand Total:								698202.69	

## MATERIALS FOR RURAL WATER AND SANITATION PROJECTS

## 16. MATERIALS FOR DEEPWELL DRILLING OPERATION:

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Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul	Total				
03-04-00535	Steel casing pipes with standard threads on both ends with heavy duty socket in 6 metres length and 8 5/8 inches diameter.	130	470	200	800	Each	159	127200	
03-04-00536	Same as item 3 with slots of standard size (2 to 3 mm width).	30	70	50	150	Each	199	29850	
03-04-00537	Steel casing pipe with standard threads on both ends with heavy duty socket in 6 metres length and 6 5/8 inches diameter.	130	270	150	550	Each	137	75350	
03-04-00538	Same as item 5 with slots of standard size (2 to 3 mm width).	30	50	40	120	Each	105	12600	
03-04-00539	ATLAS COPCO WELL DRILLING RIG AQUADRILL 2500 mounted on truck NL 10 6 x 4 with MUD PUMP type Gardiner Denver 7 1/2 inch x 10 inch driven by 4/71 Detroit diesel engine, DRILLING TOOLS, and SPARE PARTS for 2 years operation.	1	0	1	2	Set	1,000,000	2000000	
03-04-00540	Diesel operated welding machine, capacity 330 Amp, welding frequency 450 c/s, with hand welding set	0	2	0	2	Set	4,696	9392	
03-04-00541	Depth indicator (sounding for ground water measurement portable robust construction measuring range 200 m and digit indication in metres and centimeters reference No A0103005, page 15, AQUA PLUS	0	1	0	1	Each	1153	1153	
03-04-00542	Bentinite according to API specifications	0	100	0	100	Ton	120	12000	
								226754	
								5	
Primary shipping costs [12%]:								272105	
								40	
Levy [3%]:								68026.3	
								5	
Grand Total:								2607676	
								.75	

## MATERIALS FOR RURAL WATER AND SANITATION PROJECTS

## 17. OTHER MATERIALS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul	Total				
03-04-00543	UNICEF commodity code: 451323 Photocopier, SHARP, model SF-2025 electrical specs. 220V 50Hz.	0	1	0	1	Each	3500	3500	CCX 972309
03-04-00544	Photo-copier, CANON NP 6062: console, platen: stationary, photoconductive material: amorphous silicon, copying system electrostatic transfere system developing system: toner projection system fixing system: heat roller system. Power source 220/240V 50Hz dimensions (W*D*H) (620*725*994mm) with voltage stabilizer with reduction and enlargement facilities with O&M manual, include technical repair manual in English and spare parts catalogue and with two years spare parts including a drum for normal operation. with 10 spare black toner cartridges	0	0	1	1	Each	12100	12100	
03-04-00545	UNICEF Commodity Code:482850 Builder's Level Automatic Level , NI 50 with 400 degree/701135.9800.000 S 33 tripod with screw/707234.0000.000 L4 Leveling rod/707626.0000.000 Supplied in carrying case, with operation instructions and necessary accessories	0	1	1	2	Each	600	1200	CCX 972372
03-04-00546	Theodolite with stand and other accessories, KERN Co. Ltd. or equivalent.	1	1	1	3	Set	1500	4500	
03-04-00547	Desk-top computer, Company: IBM or equivalent, Pentium, 200 MHZ CPU, 32MB RAM, 3GB hard disk, 3.5 inch high density floppy disk drive, Arabic/English keyboard, SVGA card, SVGA 14 inch monitor with mouse and mouse pad, and with all cables. Should be pre-loaded with Windows 95/98 and MS office version 7, Arabic. Please note that repairing facilities available locally for IBM compatible computers.	1	1	1	3	Each	3000	9000	
03-04-00548	HP-6L laser jet, with 5 additional toner cartridges.	1	1	1	3	Set	1,500	4500	
03-04-00549	Paper for photocopiers and printers, size A4/210 x 297 mm	0	100	0	100	Ream	3.1	310	
03-04-00550	Community maintenance tool kit consisting of the following: 1. Lubricating oil can, 200 ml capacity 2. Flat spanner set with open end one side and box type on other end of same size (10, 12, 14, 17, 19 and 22 mm) 3. Adjustable wrench, 200 mm length 4. Pipe wrench, 460 mm length 5. Pipe wrench, 600 mm length 6. Screw driver, 300 mm length 7. Grease gun, 0.6 litre capacity (A1205016) To be set packed in a cartoon box.	100	100	100	300	Set	60	18000	CCX 972251
03-04-00551	Over head projector size A4 220V, 50/60 Hz, table model with lamp changer, lens F330MM, tropicalized version	0	1	0	1	Each	260	260	
03-04-00552	UNICEF Commodity Code: 1802115 Slide projector, 35mm with carousel type (rotary) tray, wire remote control and zoom lens 100-150 mm. Multivoltage 110/240 v, 50/60 Hz, halogen lamp EHJ 24 v, 250 w. Complete with sturdy aluminum carrying case.	0	1	0	1	Each	700	700	
03-04-00553	Lamp replacement for projector 1802115	0	2	0	2	Each	3	6	

## 17. OTHER MATERIALS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul	Total				
03-04-00554	Lamp replacement for projector 1803020-220V	10	2	0	12	Each	3	36	
03-04-00555	Transparencies for over head projector PK/100	0	1	0	1	Ream	5.36	5.36	
03-04-00556	Video camera model 9500 Panasonic or National M1000, made in Japan	0	1	0	1	Set	2500	2500	
03-04-00557	VHS Video cassette tape, high grade, 2 hr (as JVC E-126 EHG or equivalent)	0	20	0	20	Each	4	80	
03-04-00558	Television Type SONY 29 inch made in Japan	0	1	0	1	Set	1780	1780	
03-04-00559	VCR Type SONY, G101 or latest model, Japan	0	1	0	1	Set	350	350	
03-04-00560	Polypropylene membrane	0	50	0	50	M2	10	500	
03-04-00561	Photocopier SHARP SF 2025 with toner/web material	0	0	0	0	Set	3500	0	
03-04-00562	Ribbon for Epson(LQ -850)	0	12	0	12	Each	200	2400	
03-04-00563	TOYOTA LAND CRUISER, 4 WD, Long wheel base, 5-door, STD 4500 cc petrol engine, 8 seater, 5-speed floor shift, colour-white, left hand drive incl. air conditioner, power steering, fire extinguisher, FR/RR mud guards with export specifications for Iraq. With manufacturer recommended first service and fast moving spare parts kit, with manual in English and spare parts catalogue.	0	3	0	3	Each	18000	54000	
03-04-00564	TOYOTA PICKUP Double cabin, 4 WD, long wheel base 1800 cc petrol engine, 5-speed floor shift, colour-white, left hand drive incl. air conditioner, power steering, fire extinguisher, FR/RR mud guards with export specifications for Iraq. With manufacturer recommended first service and fast moving spare parts kit, with manual in English and spare parts catalogue	0	3	0	3	Each	15000	45000	
03-04-00565	Colour scanner A4, HP Scan Jet with all software and cables	0	1	0	1	Set	5000	5000	
03-04-00566	Super Shovel type Kawasaki KSS 70 Z	0	1	0	1	Each	60000	60000	
03-04-00567	Hydraulic Crane, KATO, 15 Tone	0	1	0	1	Each	109507	109507	
03-04-00568	Voltage regulator for photocopier 8 Amp, 220-240 V	0	2	0	2	Each	150	300	
03-04-00569	Leveling rods, metric system AQUA PLUS A0101008 page 5	0	1	0	1	Each	75	75	
03-04-00570	UPS, 250 VA, 220/240 V	0	3	0	3	Each	350	1050	
03-04-00571	Rectangular steel water tank 20 m <sup>3</sup> (3.66 x 2.44 x 2.44) m, 5 mm thickness externally flanged base and sides. the steel should conform to the requirements of BS4360: 1986: Gr.43A or EN 10025: 1990Fe 430A and Galvanized to BS 729 with 2.5 mm thick cover supported on angle rafters which supported by bearers and posts to suit the width of the tank. with - Hinged gate valve 1.5 inch - Outlet gate valve 2 inch - Wash out gate valve 2 inch - Opening overflow 2 inch company: BRAITHWAITE Engineers Ltd. South Wales NP9 2UY Telex: 498237 Fax: (01633) 250631	0	8	0	8	Each	6000	48000	

## 17. OTHER MATERIALS

Code	Description	Quantity				Unit	Unit price in US\$	Total price in USD	Reference
		Dhk	Erb	Sul	Total				
03-04-00572	Truck, Mercedes, LB 2628 or VOLVO capacity 12 tonne	0	2	0	2	Each	70000	140000	
03-04-00573	Generator, 50 KVA diesel driven	0	2	0	2	Each	25000	50000	
03-04-00574	H <sub>2</sub> S strips for testing bacteriological contamination of water (small bottles)- manufactured in India.	0	500	0	500	pcs	0.75	375	
03-04-00575	Slow dissolving chlorine tablet, in packs of 5 or 4 kg				3080	Kg	20	6000	
03-04-00576	Floating Chlorinator				650	Each	4	800	
03-04-00577	Ground water survey equipment	1	1	1	3	Set	30,000	90000	
03-04-00578	Electrical Generator, HONDA, 3.5KVA	2	2	2	6	Set	500	3000	
Sub-total:								674834.36	
Primary shipping costs [12%]:								80980.12	
Levy [3%]:								20245.03	
Grand Total:								776059.51	

## PHASE V

**WATER AND ENVIRONMENTAL SANITATION**

## BUDGET SUMMARY

<b>Sl. No.</b>	<b>Description</b>	<b>Amount (US \$)</b>
<b>A. Supply</b>		
URBAN WATER AND SANITATION		
01	Water Treatment Chemicals	308,516.25
02	Water Treatment Equipment	352,206.96
03	Pipes and Specials	2,685,162.70
04	Other Materials for Water Supply	769,034.78
05	Submersible pumps and Specials	434,609.90
06	Vertical Turbine Pumps	620,031.06
07	Booster Pumps and Spare Parts	1,708,365.83
08	Electrical Equipment	535,095.12
09	Generators and Spares	431,250.00
10	Tools and Accessories	25,085.58
11	Sanitation Vehicles and Spares	4,072,959.56
12	Other Materials for Sanitation	507,123.99
Sub-Total (Urban)		12,449,441.73
RURAL WATER AND SANITATION		
13	Metal Pipes and Fittings	782,964.30
14	Construction and Sanitary Materials	734,930.50
15	Pumps and Specials	698,202.69
16	Materials for Deep well Drilling Operation	2,607,676.75
17	Other Materials	776,059.51
Sub-Total (Rural)		5,599,833.75
<b>Total (Supply)</b>		<b>18,049,275.48</b>
<b>B. Cash</b>		<b>3,950,724.52</b>
<b>Grand Total</b>		<b>22,000,000</b>

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES							
WATER TREATMENT AND TESTING							
Annex 2							
Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost	Amended Total Cost USD
03-04-00579	Spare parts for V-notch Vacuum Chlorinators from Wallace & Tiernan Valve Body, Part No: U82439	Each	20	0	200	0	4,000.00
03-04-00580	Spare parts for V-notch Vacuum Chlorinators from Wallace & Tiernan Stem (part of key 24), Part No: P85611	Each	5	0	200	0	1,000.00
03-04-00581	Spare parts for V-notch Vacuum Chlorinators from Wallace & Tiernan Flow meter assembly, 250mg/sec Part No: U82531	Each	80	0	20	0	1,600.00
03-04-00582	Spare parts for V-notch Vacuum Chlorinators from Wallace & Tiernan Flow meter assembly, 550mg/sec Part No: U82978	Each	130	0	20	0	2,600.00
03-04-00583	Spare parts for V-notch Vacuum Chlorinators from Wallace & Tiernan Flow meter assembly, 1800mg/sec Part No: U91837	Each	200	0	20	0	4,000.00
03-04-00584	Spare parts for powder chlorinator type G020 from Dosapro Milton Roy - Pump Series GTM Model A Filter for foot valve. See Instruction Manual, page I-4, Fig 1.4a, A.	Each	2	0	150	0	300.00
03-04-00585	Valve Seat for foot valve. See Instruction Manual, page I-4, Fig 1.4a, A.	Each	15	0	150	0	2,250.00
03-04-00586	Valve Housing for foot valve. See Instruction Manual, page I-4, Fig 1.4a, A.	Each	25	0	150	0	3,750.00
03-04-00587	Ball for foot valve. See Instruction Manual, page I-4, Fig 1.4a, A.	Each	3	0	150	0	450.00
03-04-00588	Ball Seat for foot valve. See Instruction Manual, page I-4, Fig 1.4a, A.	Each	5	0	150	0	750.00
03-04-00589	4-Function Valve. See Instruction Manual, page I-4, Fig 1.4a, B.	Each	30	0	150	0	4,500.00
03-04-00590	Valve Housing for Injection Nozzle. See Instruction Manual, page I-4, Fig 1.4a, C.	Each	15	0	150	0	2,250.00
03-04-00591	Spring for Injection Nozzle. See Instruction Manual, page I-4, Fig 1.4a, C.	Each	3	0	150	0	450.00
03-04-00592	Ball for Injection Nozzle. See Instruction Manual, page I-4, Fig 1.4a, C.	Each	3	0	150	0	450.00
03-04-00593	Ball Seat for Injection Nozzle. See Instruction Manual, page I-4, Fig 1.4a, C.	Each	5	0	150	0	750.00
03-04-00594	Valve Body Seat for Injection Nozzle. See Instruction Manual, page I-4, Fig 1.4a, C.	Each	15	0	150	0	2,250.00
03-04-00595	Stroke Adjustment Knob for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	5	0	30	0	150.00
03-04-00596	O-Ring for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	1	0	30	0	30.00
03-04-00597	Stroke Adjustment Screw for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	2	0	30	0	60.00
03-04-00598	Crosshead for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	20	0	20	0	400.00
03-04-00599	Male Eccentric Piece for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	5	0	20	0	100.00
03-04-00600	Stroke Locking Device for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	25	0	20	0	500.00
03-04-00601	Half stop ring for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	2	0	20	0	40.00
03-04-00602	Tangential Wheel for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	5	0	20	0	100.00
03-04-00603	Stop Bearing for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	10	0	20	0	200.00

PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES							
WATER TREATMENT AND TESTING							
Annex 2							
		Unit	Unit Price in USD	Original Distribution			
03-04-00604	Cover Seal for Mechanical assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	1.5	0	20	0	30.00
03-04-00605	Liquid End Mounting Assembly. See Instruction Manual, page I-1, Fig 1.2a	Each	15	0	20	0	300.00
03-04-00606	Ball bearings for powder chlorinator, size SKF 6201	Each	1.1	0	100	0	110.00
03-04-00607	Ball bearings for powder chlorinator, size SKF 6202	Each	1.24	0	100	0	124.00
03-04-00608	Ball bearings for powder chlorinator, size SKF 6203	Each	1.37	0	100	0	137.00

## PROJECT 1: URBAN AND SEMI-URBAN WATER SUPPLIES

Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost US\$	Amended Total Cost US\$
03-04-00609	V. J. Easi clamps for 90 mm, PN 25, Standard length pipe	Each	15.00	0	140	0	2,100.00
03-04-00610	Same as item 9 but for 110 mm pipe.	Each	20.00	0	140	0	2,800.00
03-04-00611	Same as item 9 but for 160 mm pipe.	Each	30.00	0	130	0	3,900.00
03-04-00612	Same as item 9 but for 220 mm pipe.	Each	50.00	0	25	0	1,250.00
03-04-00613	Unicef Commodity Code: 412835 Ductile Tee socket with rubber, PN 25, Dia 10 x 18 inch*	Each	400.21	0	6	0	2,401.26
03-04-00614	Unicef Commodity Code: 412835 Equal socket for ductile pipes with rubber gasket joints, F XF PN 25, 16 inch dia	Each	260.00	0	4	0	1,040.00
03-04-00615	Unicef Commodity Code: 412835 Standard socket & spigot joints for ductile pipes with rubber gasket joints, with rubber gaskets F X M, PN 25, 18 inch dia	Each	220.00	0	3	0	660.00
03-04-00616	Unicef Commodity Code: 412835 Same as above but 24 inch dia	Each	250.00	0	1	0	250.00
03-04-00617	Unicef Commodity Code: 432417 Same as above but 16 inch dia	Each	1,200.00	0	1	0	1,200.00
03-04-00618	Unicef Commodity Code: 432417 Same as above but 20 inch dia	Each	1,500.00	0	1	0	1,500.00
03-04-00619	Unicef Commodity Code: 432417 Same as above but 16 inch dia	Each	350.00	0	2	0	700.00
03-04-00620	Unicef Commodity Code: 432417 Same as above but 20 inch dia	Each	400.00	0	2	0	800.00
03-04-00621	Unicef Commodity Code: 413835 Black flanges but for 75mm dia ductile pipes.	Each	8.00	0	40	0	320.00
03-04-00622	Mild steel GS riser pipes 3 inch dia, 3 m long	Each	14.00	0	300	0	4,200.00
03-04-00623	Same as above but 4 inch dia	Each	18.00	0	200	0	3,600.00
03-04-00624	Same as above but 5 inch dia	Each	30.00	0	100	0	3,000.00
03-04-00625	Steel spiral welded pipes size 500mm, thickness 8mm, PN 25 bar, each 6m length for suction line.	Each	300.00	0	10	0	3,000.00
03-04-00626	Steel spiral welded pipes size 400mm, thickness 10mm, PN 40 bar, each 6m length for suction line.	Each	240.00	0	10	0	2,400.00

\* amended 11 May 99

Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost US\$	Amended Total Cost US\$
03-04-00627	Electrically operated flanged gate valve with bolts, nuts and gaskets size 400mm for the delivery line to control the quantity of pumped water, PN 40 bar, with all electrical accessories.	Each	2,000.00	0	6	0	12,000.00
03-04-00628	Flanged gate valve size 500mm with bolts, nuts and gaskets for the suction line, PN 25	Each	1,800.00	0	6	0	10,800.00
03-04-00629	Flanged fast closing spring locked non-returned valve size 400mm with bolts, nuts and gaskets for the delivery line, PN 40	Each	2,910.00	0	6	0	17,460.00
03-04-00630	Spiral welded steel bent 90 degree, size 500mm, PN 25 for the suction pipes.	Each	150.00	0	10	0	1,500.00
03-04-00631	Spiral welded steel bent 90 degree, size 400mm, PN 40 for the suction pipes.	Each	120.00	0	10	0	1,200.00
03-04-00632	Flanged reducer for steel spiral pipes size 500mm x 300mm, with bolts, nuts and gaskets. PN 40	Each	150.00	0	6	0	900.00
03-04-00633	Flanged reducer for steel spiral pipes size 400mm x 250mm, with bolts, nuts and gaskets. PN 40	Each	120.00	0	6	0	720.00
03-04-00634	Flexible couplings for jointing steel pipes with the valves. The spigots should be manufactured from steel or malleable iron and shall comprise two glands with bolts and two rubber joints. Size 500mm, PN 25	Each	100.00	0	6	0	600.00
03-04-00635	Flexible couplings for jointing steel pipes with the valves. The spigots should be manufactured from steel or malleable iron and shall comprise two glands with bolts and two rubber joints. Size 400mm, PN 40	Each	100.00	0	12	0	1,200.00
03-04-00636	Unicef Commodity Code: 412835 Ductile Tee socket with rubber, PN 25, Dia 10 x 6 inch	Each	300.00	5	10	1,500.00	3,000.00

**PROJECT 2: URBAN AND SEMI-URBAN WATER SUPPLIES**

**PUMPS AND ASSOCIATED EQUIPMENT**

**Annex 5**

Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost in US\$	Amended Total Cost in US\$
03-04-00637	Unicef Commodity Code: 432287 Motor set for Grundfos submersible pump with tail cable and cable joint and control panel, 400V, 50HZ, 3PH.Capacity 5.5 KW	Set	2,556.00	0	2	0	5,112.00
03-04-00638	Low-lift submersible drainage pump for raw water with direct coupled electrical motor 400V, 50HZ, 3 phase with complete control panels and 30 meter 3 core cable Q=60 cubic meter/hour and Head=15 meter.	Set	3,170.00	0	1	0	3,170.00
03-04-00639	Same as above Q=200 Cubic meter/hour and Head= 30meter.	Set	9,189.25	0	1	0	9,189.25
03-04-00640	Same as above Q=300 Cubic meter/hour and Head= 20meter.	Set	11,154.12	0	1	0	11,154.12

PROJECT 2: URBAN AND SEMI-URBAN WATER SUPPLIES							
PUMPS AND ASSOCIATED EQUIPMENT							
Annex 6							
Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost in US\$	Amended Total Cost in US\$
03-04-00641	Vertical motor complete set for Grundfos vertical Turbine pumps, 380V 50Hz, 2900 rpm, 3PH, capacity 11KW	Each	550.00	0	4	0	2,200.00

PROJECT 2: URBAN AND SEMI-URBAN WATER SUPPLIES							
PUMPS AND ASSOCIATED EQUIPMENT							
Annex 8							
Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost in US\$	Amended Total Cost in US\$
03-04-00642	Electric cable, high tension, 3.3KV, size 3 x 150mm	ML	75.00	0	500	0	37,500.00
03-04-00643	Same above but size 3 x 95mm	Set	60.00	0	600	0	36,000.00

PROJECT 2: URBAN AND SEMI-URBAN WATER SUPPLIES							
PUMPS AND ASSOCIATED EQUIPMENT							
Code	Description	Unit	Unit Price in USD	Original Distribution	Amended Distribution	Original Total Cost in US\$	Amended Total Cost in US\$
03-04-00644	Diesel generator complete set with control panel Maximum output power 500 KVA, 400V, 3Ph and 50Hz. 50 deg C max; and 1,200 m max alt. Supplied with O&M manual and spare parts catalogue in English. With spare parts for 2 years normal operation and accessories.	Set	42,976.00	0	1	0	42,976.00
03-04-00645	Same as above, capacity 400 KVA.	Set	39,720.00	0	1	0	39,720.00

PROJECT 3: URBAN AND SEMI-URBAN SANITATION EQUIPMENT							
Annex 11							
Code	Description	Unit	Unit price in US\$	Original Distribution	Amended Distribution	Original Total Cost in US\$	Amended Total Cost in US\$
03-04-00646	Shovel, KAWASAKI KSS 80 with spare parts for 2 years operation and spare parts/operation manual in English	Set	70,000.00	0	1	0	70,000.00
PROJECT 4: RURAL WATER SUPPLIES AND SANITATION							
Annex 15							
03-04-00647	UNICEF Commodity Code: 432287 Same as item 2, submersible pump type SP8A-21, inch 1 6" motor, Discharge 3"BSP, Q=2 cum/hr (min) and head = 115 M (max). For 8 inch cased borewell. Submersible pump type SP10-30	Set	5,000.00	0	4	0	20,000.00
03-04-00648	UNICEF Commodity Code: 432287 Same as item 2, submersible pump type SP8A-21, inch 1 6" motor, Discharge 3"BSP, Q=2 cum/hr (min) and head = 115 M (max). For 8 inch cased borewell. Submersible pump type SP8-25	Set	5,000.00	0	4	0	20,000.00
03-04-00649	Deep well turbine pumping system, operating at 2,700 RPM for pumping clean water to fit in a 8 inch bore well, Q=8 cum/hr and head = 140 M at 1,200 metres, spare parts for 2 years operation, O&M manual in English and spare parts catalogue	Set	8,689.00	0	4	0	34,756.00
PROJECT 4: RURAL WATER SUPPLIES AND SANITATION							
Annex 16							
03-04-00650	ATLAS COPCO or equivalent, 900 cfm/350 PSI Compressor powered by an engine of suitable capacity, trailer mounted, with towing hocks, to be used for testing borewells	Set	96,000.00	0	1	0	96,000.00
PROJECT 4: RURAL WATER SUPPLIES AND SANITATION							
Annex 17							
03-04-00651	A.V.O. Clampmeter, NATIONAL, BT 1102-5K, 1200K, 600V-AC, 50 Hz	Each	26.00	0	3	0	78.00
03-04-00652	Kyoritsu insulation tester (Megger), sensitivity upto 20Mohm, 5kV	Each	155.00	0	3	0	465.00

Code	Description	Unit	Original Distribution	Amended Distribution
03-04-00653	High pressure multi-stage centrifugal booster pump for pumping treated water. Q=1500 cum/hr, H=200M. Coupled with electrical driven motor through a flexible coupling, with control panel including oil circuit breaker 12KV with all relays and protection devices. Shaft and impellers should be made of stainless steel, thermometers should be attached to both end bearings. Motor should be squirrel cage, 1500 rpm, 3300V, P=50Hz, 3P. Max altitude 1,000m. With spare parts for two years operation, operation and maintenance manual in English, and spare parts catalogue. Packed suitable for sea and land transportation. FOR NEW INSTALLATION. CABLE TO BE PACKED SEPRATELY WITH EACH SET.	Set	0	2
03-04-00654	Same as above but: Q = 1500 cum/hr, H = 165m	Set	0	2
03-04-00655	Spare parts for Control Panels(Ingersol Pump) Soft starter Type IDP 3 for operating motor 375 KW, 400V, 50Hz Quantity = 1 No. Soft starter Type IDP 3 for operating motor 75 KW, 400V, 50Hz Quantity = 2 No. Soft starter Type IDP 3 for operating motor 510 KW, 400V, 50Hz Quantity = 1 No. Soft starter Type IDP 3 for operating motor 160 KW, 400V, 50Hz Quantity = 1 No. Soft starter Type IDP 3 for operating motor 250 KW, 400V, 50Hz Quantity = 2 No. SMC plus control terminals for protection Motor 375 KW, V=400, I=670Amp. Made by ALLEN BRADLEY. Quantity = 2 No. Catalog Item No. 2co 87024 PTC PROBE RELAY Reference RT 3-A 400 V 50/60 HZ MARQUE = SPRECHER+SCHUCH Quantity = 5 No. Catalog Item No. KA1 MODULAR FUSE CARRIERS ST 10 111 2A OM Reference: F 081241 MARQUE=FERRAZ Quantity = 50 No. Catalog item No. F2 ILLMINATED RED FLUSH PUSH BUTTON, REFERENCE = 800EP-LF 43DLDXO 1 MARECHER+SCHUH. Quantity = 20 No. Catalog item No. S3H1 AMMETER SWITCHES, REFERENCE= 172K0022 MARQUE= 1 MESYS SOCOMEC. Quantity = 10 No. Catalog item No	Set	0	1