

WATER & SANITATION

Deterioration in this sector has manifested itself most seriously in the decrease in quantities & Quality of potable water and in inadequate sanitation for the population both of which have contributed to sharp increases in the incidence of water - born diseases .

There are 210 water treatment plants and 1200 compact water treatment units , and thousands kilometers of transmission pipes of different kinds . also there are 36 boosting station .

There are (10) sewage treatment networks with treatments plants that partially serve (10) provincial capitals of centre / southern Iraq , all these are near stand still and dispose raw domestic sewage to to the river directly , in addition to that there are (520) sewage lifting station and storme water pumping station .

The immediate need for complete rehabilitation totalling to 600 million dollars . in addition to 300 million dollar to complete the unfinished projects to serve 1.8 million inhabitants .

The garbage collecting had been neglected due to the shortage of allocations and this sector needs alone 100 million to purches spare parts and new equipment.

GENERAL ESTABLISHMENT FOR WATER AND SEWERAGE

REQUIREMENT

Code	Description	Qty.
SECTION 1	Aluminuim Salphate	20000 ton
SECTION 2	Chlorine gas	5000 ton
SECTION 3	Bleaching powder	500 ton
SECTION 4	Chlorinators with spare parts	4300
SECTION 5	Alum dosing pump	2135
SECTION 6	Chlorine boosting pumps	2540
SECTION 7	Equipments for water treatment plants	16
SECTION 8	Lorry with crane	200
SECTION 9	Horizontal pump	2700
SECTION 10	Ball- bearing	26250
SECTION 11	Mobile work shop truck	100
SECTION 12	Amphibious dredger	12
SECTION 13	Tyre shovel	400
SECTION 14	Fork lift	300
SECTION 15	Lorry and Trailer	1110
SECTION 16	Cars for transport employeres	400
SECTION 17	Pick-up cars	1000
SECTION 18	Compressore with jack-Hammer	460
SECTION 19	Sewage diesel pumps	370
SECTION 20	Vertical pumps	205
SECTION 21	Diesel generator	1525
SECTION 22	Steel Reinforcement	93200 ton
SECTION 23	Cotton and rubber rein forced hose of different	28000 ml
SECTION 24	Wireless system for najaf/ kufa water supply scheme	2
SECTION 25	Stainless steel repair clamp for pipe	62000 m.l
SECTION 26	Compact unit	400
SECTION 27	Computers with printers and accessories	different
SECTION 28	G.R.P Pipes	90000
SECTION 29	Excavator	255
SECTION 30	Dumpers	100
SECTION 31	Battries & battry charger	9530
SECTION 32	T yers	13000
SECTION 33	Vehicls	24
SECTION 34	Carbage collecting vehicles	300
SECTION 35	Carbage containers hook loader trucks &Carbage containers	600
SECTION 36	water tankers	720
SECTION 37	Tractor with track (4 ton)	500
SECTION 38	Grader	200
SECTION 39	Bulldozer tractor	200
SECTION 40	Paver finisher	30
SECTION 41	Spare part for(Volvo , Cuter piller, Foun, Hino, Kawsaky)Cars & Equipment	L.S
SECTION 42	traffic light Equipment	L.S
SECTION 43	Lifting crane	140
SECTION 44	Spare part for mosul water treatment plants	L.S
SECTION 45	UPVC Pipes & fittings for maintenance of the networks	9380000

Code	Description	Qty.
SECTION 46	Fire extinguisher foam	1000000 L.IT
SECTION 47	Equipment for compressed air	40
SECTION 48	Land crusier	650
SECTION 49	Fuel tanker	120
SECTION 50	Command fire fighting vechic le	100
SECTION 51	Road marking machines	30
SECTION 52	Traffic Safety Materials	L.S
SECTION 53	Spare parts for existing traffic light controllers	L.S
SECTION 54	Spare parts for Road marking machine type(zindle universal)	L.S
SECTION 55	Rescue Vehicle (van)	100
SECTION 56	Compacting Roller (Steel -steel Roller)	90
SECTION 57	Tyre -steel Roller Compactor	90
SECTION 58	Pneumatic -Tyred Roller	90
SECTION 59	Foot Sheep Vibratory Roller	90
SECTION 60	Machine For Removing Asphalt	15
SECTION 61	Ductile Iron Pipes & Fittings	L.S
SECTION 62	Labratory Mobile	20
SECTION 63	Starters	4150
SECTION 64	Cables	309800
SECTION 65	Laberatory testing chemical naterial & equipment	L.S
SECTION 66	Flow Rate Measuring Equipment	2000200
SECTION 67	Sewage Compact Unit	100
SECTION 68	Bore hole Drilling and Maintenance Machine	30
SECTION 69	Spare parts for chlorinators	L.S
SECTION 70	Electric Motors	1370
SECTION 71	Cleaning Equipment	L.S
SECTION 72	Wire winding for Motor	300
SECTION 73	Strainers	4500
SECTION 74	Valves	10100
SECTION 75	Electric Over Head Travelling Crane	20
SECTION 76	Bore holes Pumps	340
SECTION 77	Air Blowers	200
SECTION 78	Horizontal end suction pump	3000
SECTION 79	Sewage Submersible pumps	2200
SECTION 80	Cesspool empitern tanker	250
SECTION 81	Thermal Over Load	4560
SECTION 82	Electrical & Mechanical Machine & Tools	L.S
SECTION 83	Fitting for Maintenance	L.S
SECTION 84	Circuit Breaker	16160
SECTION 85	Reverse Osmosis units	20
SECTION 86	Cesspit Jetting Units	150
SECTION 87	Contactior	16350
SECTION 88	Rescue Vehicls (SNORKLE)	10
SECTION 89	Spare Parts & Equipment for shelter	L.S
SECTION 90	Worker Fixed on Vehicles and truck	200
SECTION 91	Sky Lift	20
SECTION 92	Polyethylene pipes & fittings	L.S
SECTION 93	Spare parts for scaina model 1981	L.S
SECTION 94	Communication System	L.S
SECTION 95	Motor Cycle	25
SECTION 96	Rescue Boat	20

SECTION 1

Aluminium Sulphate

Code	Description	Qty
03-02-00001	Aluminium Sulphate in 50 Kg bags	20000 Ton

SECTION 2

Supply Chlorine Gas

Code	Description	Qty
03-02-00002	Supply New cylinder of (1) ton with chlorin gas	4000 ton
03-02-00003	Supply New cylinder of (50) kg with chlorine gas	1000 ton
	<i>total</i>	5000

SECTION 3

BLEACHING POWDER

(CALCIUM HYPOCHLORITE)

Code	Description	Qty
03-02-00004	Supply Bleaching Powder (calcium hypochlorite)	500ton

SECTION 4

CHLORINATROS with spare parts for all Governarates

Code	Description	Qty
03-02-00005	Cylinder mounted, 500 g / hr.	500
03-02-00006	Wall mounted, 1000 g / hr.	500
03-02-00007	Wall mounted 2000 g / hr.	1000
03-02-00008	Wall mounted, 3000 g / hr.	500
03-02-00009	Wall mounted, 4000g / hr.	500
03-02-00010	Wall mounted 5000 g / hr.	300
03-02-00011	Wall mounted 6000 g / hr.	300
03-02-00012	Floor mounted 8000 g / hr.	200
03-02-00013	Floor mounted 10000 g / hr.	300
03-02-00014	Floor mounted 12000 g / hr.	100
03-02-00015	Floor mounted 20000 g / hr.	100
TOTAL		4300

SECTION 5
Alumina dosing pumps

Alumina dosing pumps :-

Alum sulphate motor driven chemical dosing pump for aluminium sulphate solution capacity & discharge pressure as mentioned above.

- The motor suitable for operation at 380v, 3ph so HZ power supply.
 - Manual adjustment of stroke length with accessories for each dosing pumps.
 - Strainer, injector.
 - Relief valve.
 - The suction incharge and discharge flexible UV resistance tube connection length 20 m.
 - Maintenance kit composed for each dosing pump.
 - Tank UV resistance improved version capacity 60 liter for dosing pump capacity 5.5 L / H.
 - 4 diaphragm.
 - 4 seat.
 - 4 balls.
 - 1 nozzle spring.
 - 2 valve assembly.
 - Starter dol for each pump with cable length 20 m.
- Starter dol contain one gutaeter and one over load and 2 push - button on the front door of cabinet IP56 with lighting lamp on-off- fuit.

Code	Capacity (L/hr)	Head (m)	Qty
03-02-00016	250	30	20
03-02-00017	520	20	10
03-02-00018	200	30	90
03-02-00019	200	15	20
03-02-00020	180	15	10
03-02-00021	100	12	10
03-02-00022	1420	20	10
03-02-00023	25	70	10
03-02-00024	80	30	140
03-02-00025	50	25	330
03-02-00026	25	30	470
03-02-00027	142	20	180
03-02-00028	500	30	10
03-02-00029	100	25	50
03-02-00030	5.5	30	330
03-02-00031	600	25	20
03-02-00032	1000	30	10
03-02-00033	1000	40	25
03-02-00034	600	40	150
03-02-00035	300	30	20
03-02-00036	300	40	30
03-02-00037	150	25	10
03-02-00038	500	50	10
03-02-00039	400	70	20
03-02-00040	860	30	10
03-02-00041	420	30	10
03-02-00042	545	30	10
03-02-00043	760	30	20
03-02-00044	300	100	20
03-02-00045	100	100	20

Code	Capacity (L/hr)	Head (m)	Qty
03-02-00046	100	50	10
03-02-00047	50	80	10
03-02-00048	400	100	20
03-02-00049	800	100	10
03-02-00050	1100	50	10
03-02-00051	500	100	10
03-02-00052	150	40	30
03-02-00053	1200	60	20
03-02-00054	1100	100	10
03-02-00055	600	116	20
03-02-00056	800	116	10
Total			2035

Section - 6 -

CHLORINE BOOSTING PUMPS

Vertical pump type, running At 2900 R.P.M complete with shaft, impeller, vans from stainless steel complete with motor, 400 V, 50 Hz, 3 Phase, IP 55, Class F insulation B5 with (D.O.L) starter,.

The motor power plus (10 %) .

(D.O.L.) starter metal cabinet , IP 56 for each pump contain:

One) Main isolating switch, with (3) fuses

Two) Contactor.

Three) over load.

Four) Phase failure.

Five) 3 Current transformer

On front of the cabinet must contain :-

One) Amper meter, with selector switch and Voltmeter with selector switch .

Two) 3- indication lamp.

Three) 2- push button.

- Spare parts for each pump .

One) Set of ball Bearing (pump)

Two) Set of ball Bearing (motor)

Three) One set of mechanical seal.

Code	Capacity (m³/h)	Head (m)	Qty
03-02-00057	12	56	80
03-02-00058	25	70	80
03-02-00059	10	70	80
03-02-00060	20	80	100
03-02-00061	6	54	100
03-02-00062	15	80	400
03-02-00063	5	80	40
03-02-00064	2	80	500
03-02-00065	6	100	180
03-02-00066	9	120	50
03-02-00067	20	120	50
03-02-00068	15	100	60
03-02-00069	10	160	120
03-02-00070	16	200	80
03-02-00071	9	200	120
03-02-00072	4	80	100
03-02-00073	25	80	60
03-02-00074	10	80	80
03-02-00075	14	70	140
03-02-00076	20	60	120
total			2540

SECTION 7

EQUIPMENT FOR WATER AND SEWAGE TREATMENT PLANTS

To supply complete electrical and mechanical equipment for the following projects consist of different type of pump sets, clarifloculators , flash mixer ,alum dosing apparatus , chlorinators , filters hround torag ctonfs , elevated tants , low TLT, H.T cables , pumping mains ,water meters , yard piping valves , fitting , cranes and other material to put the project in good operations .

Code	Cov.name	Project name .	capacity m3/h	Qty.
03-02-00077	Baghdad	Abo-Gharib water treatment plant	1000	1
03-02-00078	Baghdad	AL-Nahrawan water treatment plant	1500	1
03-02-00079	Anbar	Rawa water treatment plant	1000	1
03-02-00080	Anbar	Al-Qaeem water treatment plant	1000	1
03-02-00081	Salah-Al-Deen	Tuz-Kufri water treatment plant	4000	1
03-02-00082	Salah-Al-Deen	Balad sewage treatment plant	390	1
03-02-00083	Salah-Al-Deen	Qadissia water treatment plant	3000	1
03-02-00084	Salah-Al-Deen	Qadissia sewage treatment plant	L.S	1
03-02-00085	Salah-Al-Deen	AL- Ouga sewage treatment plant	L.S	1
03-02-00086	Salah-Al-Deen	Samara sewage treatment plant	12000	1
03-02-00087	Nenawa	Tal-Afar water treatment plant	8000	1
03-02-00088	Nenawa	Al-Qoosh water project	4000	1
03-02-00089	Wasit	Al-Hai-Muafaqea water treatment plant	1500	1
03-02-00090	Thi-Qaar	AL-Nassirya water treatment plant	20000	1
03-02-00091	Thi-Qaar	Nassirya sewage treatment plant	17000	1
03-02-00092	Basra	Basra Sewage treatment plant phase (3)	94000	1
Total				16

SECTION 8

Lorry with crane

Code	Description	Qty
03-02-00093	Lorry (10) ton with (5) ton telescopic crane	200

**SECTION - 9 -
Horizontal Split Case Pumps**

- 1- Complete electrical horizontal split case pumps with motors, starters, spare parts as mentioned below .
- Impeller of bronze, shaft of stainless steel.
 - 2- Squirrel cage motor, 3 Ph., 400 V, 50 Hz., IP55, Class F insulation coupled to the pump on steel frame except the item with mark x must be slipping
 - 3- Starter must be (star- delta) starter for motor above (5) KW., below must be (D.O.L) starter.
 - Motor rating must be (20%) more power required.
 - *(N PSH) of the pump not more than 5 Mt .
 - * The efficiency of the pumps should be not less 70 % accept the multistage pumps and
 - Each starter must be steel cabinet IP 56 contain :-
- One) Main isolating switch with main fuses.
Two) Contactors, overload relay, timer
Three) phase failure
Four) (Ammeter, Voltmeter with selector switch indicating lamps, push button- all on front of cabinet.
- 4- Spare parts for each pump
- One) Impeller
Two) Shaft sleeve
Three) Casing wear ring
Four) Set of Ball Bearing (for motor and pump)
- 5-Supply each pump gate valve 2 No. , NoN -return valve 1 No.
Note : M S must be multistage .

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00094		Wasit	Al suwaira w.t.p	250	80	4	S.C	1500
03-02-00095		Wasit	New Nummaniya w.t.p	165	40	8	S.C	1500
03-02-00096		Wasit	Old Nummaniya w.t.p	120	40	6	S.C	1500
03-02-00097		Wasit	Old Nummaniya w.t.p	120	20	6	S.C	1500
03-02-00098		Wasit	New Nummaniya w.t.p	160	20	6	S.C	1500
03-02-00099		Wasit	Al -Ahrar w.t.p	165	50	2	S.C	1500
03-02-00100		Wasit	Al -Ahrar w.t.p	170	20	2	S.C	1500
03-02-00101		Wasit	Jasan w.t.p	100	50	4	S.C	1500
03-02-00102		Wasit	Jasan w.t.p	120	20	3	S.C	1500
03-02-00103		Wasit	Sheikh saad w.t.p	80	50	1	S.C	1500
03-02-00104		Wasit	Al Dubouni w.t.p	55	50	3	S.C	3000
03-02-00105		Wasit	Al Dubouni w.t.p	60	25	6	S.C	1500
03-02-00106		Wasit	Al Mazraa w.t.p	90	50	6	S.C	1500
03-02-00107		Wasit	Al Mazraa w.t.p	60	25	6	S.C	1500
03-02-00108		Wasit	Al Dahnouk w.t.p	350	20	8	S.C	1500
03-02-00109		Wasit	Al Dahnouk w.t.p	230	50	4	S.C	1500
03-02-00110		Wasit	Kut w.t.p	850	20	3	S.C	1500
03-02-00111		Wasit	Kut w.t.p	650	40	3	S.C	1500
03-02-00112		Wasit	Al Hay w.t.p	550	50	3	S.C	1500
03-02-00113		Wasit	Al Hay w.t.p	450	20	2	S.C	1500
03-02-00114		Wasit	Al Hay w.t.p	450	40	6	S.C	1500
03-02-00115		Wasit	Al Suwaira w.t.p	550	40	4	S.C	1500
03-02-00116		Wasit	Al Muaffaqiya w.t.p	90	20	2	S.C	1500
03-02-00117		Wasit	Al Muaffaqiya w.t.p	80	40	2	S.C	1500
03-02-00118		Wasit	Al Zubaidia w.t.p	55	40	2	S.C	3000
03-02-00119		Wasit	Al Zubaidia w.t.p	60	20	6	S.C	1500
03-02-00120		Wasit	Sheikh saad w.t.p	180	20	2	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00121		Wasit	Sheikh saad w.t.p	80	100	6	S.C	1500
03-02-00122		Wasit	Sheikh saad w.t.p	80	50	2	S.C	3000
03-02-00123		Wasit	Um Sunayem w.t.p	60	20	2	S.C	1500
03-02-00124		Wasit	Um Sunayem w.t.p	55	40	2	S.C	3000
03-02-00125		Wasit	Al Suwaira w.t.p	650	50	6	S.C	1500
03-02-00126		Wasit	Al Suwaira w.t.p	650	20	3	S.C	1500
03-02-00127		Wasit	Al Suwaira w.t.p	500	85	8	S.C	1500
03-02-00128		Wasit	Al Suwaira w.t.p	150	80	2	S.C	1500
03-02-00129		Wasit	Al Samideen wal Muntasireen C.U.	110	20	2	S.C	1500
03-02-00130		Wasit	Al Samideen wal Muntasireen C.U.	90	40	2	S.C	1500
03-02-00131		Wasit	Al Bashar w.t.p	60	20	2	S.C	1500
03-02-00132		Wasit	Al Bashar w.t.p	55	50	2	S.C	3000
03-02-00133		Wasit	Wasit W.T.P	60	20	2	S.C	1500
03-02-00134		Wasit	Wasit W.T.P	90	40	2	S.C	1500
03-02-00135		Wasit	Al Aziziya w.t.p	600	10	3	S.C	1500
03-02-00136		Wasit	Al Aziziya w.t.p	400	20	3	S.C	1500
03-02-00137		Missan	Amara w.t.p Unified	600	20	6	S.C	1500
03-02-00138		Missan	Amara w.t.p Unified	550	40	6	S.C	1500
03-02-00139		Missan	Boosting Station	120	60	6	S.C	1500
03-02-00140		Missan	Al Rafiden w.t.p	350	40	3	S.C	1500
03-02-00141		Missan	Al Rafiden w.t.p	400	20	3	S.C	1500
03-02-00142		Missan	Al Kahla, almajer, aladil, al musharah , ali-sharqia , kumat ,qalut salhia w.t.p	120	40	24	S.C	1500
03-02-00143		Missan	Al Kahla, almajer, aladil, al musharah , ali-sharqia , kumat ,qalut salhia w.t.p	150	20	24	S.C	1500
03-02-00144		Basrah	Al Hussen Boosting Station	930	60	3	S.C	1500
03-02-00145		Basrah	Al Hussen Boosting Station	750	120	3	S.C	1500
03-02-00146		Basrah	Al Mudaina W.T.P	200	50	8	S.C	1500
03-02-00147		Basrah	Al Jasem	100	60	4	S.C	1500
03-02-00148		Basrah	Shatt - Al Hel	50	50	8	S.C	2900
03-02-00149		Basrah	Garma No. (2)	50	50	20	S.C	2900
03-02-00150		Basrah	Shatt - Arab W.T.P	480	9	6	S.C	1500
03-02-00151		Basrah	Al -Mufeqeya Boosting Station	160	80	6	S.C	1500
03-02-00152		Basrah	Khor AL Zubair W.T.P	378	60	4	S.C	1500
03-02-00153		Basrah	Khor AL Zubair W.T.P	405	6	4	S.C	1500
03-02-00154		Basrah	Khor AL Zubair W.T.P	540	11	6	S.C	1500
03-02-00155		Basrah	Al Dair W.T.P	250	50	5	S.C	1500
03-02-00156		Basrah	Al Dair W.T.P	200	20	5	S.C	1500
03-02-00157		Basrah	Al Brathea W.T.P	400	60	8	S.C	1500
03-02-00158		Basrah	Al Brathea W.T.P	400	25	8	S.C	1500
03-02-00159		Basrah	Al -Faw W.T.P	400	79	5	S.C	1500
03-02-00160		Basrah	Al -Faw W.T.P	300	20	5	S.C	1500
03-02-00161		Basrah	Faw Net Work	50	50	6	S.C	2900

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00162		Basrah	Faw Net Work	200	50	4	S.C	1500
03-02-00163		Basrah	Old Al-Mudaina w.t.p	200	20	10	S.C	1500
03-02-00164		Basrah	Old Al-Mudaina w.t.p	200	80	8	S.C	1500
03-02-00165		Basrah	Al Bratheaa w.t.p	1500	90	8	S.C	1500
03-02-00166		Basrah	Al Suwaip w.t.p	200	60	8	S.C	1500
03-02-00167		Basrah	Al Basrah Unified w.t.p	1000	80	8	S.C	1500
03-02-00168		Basrah	Al Basrah Unified w.t.p	400	60	9	S.C	1500
03-02-00169		Basrah	Old Al Shuwaiba w.t.p	400	60	12	S.C	1500
03-02-00170		Basrah	Al Ribat w.t.p	200	50	16	S.C	1500
03-02-00171		Basrah	Abo -Alkasib w.t.p	200	50	25	S.C	1500
03-02-00172		Basrah	Abo -Alkasib w.t.p	200	50	8	S.C	1500
03-02-00173		Basrah	Abo -Alkasib w.t.p	50	50	30	S.C	2900
03-02-00174		Al Muthana	Hay -Al Saniya	300	80	6	S.C	1500
03-02-00175		Al Muthana	Al Daraje w.t.p	60	50	12	S.C	3000
03-02-00176		Al Muthana	Al Daraje w.t.p	60	20	12	S.C	1500
03-02-00177		Al Muthana	Al Majed w.t.p	60	50	3	S.C	3000
03-02-00178		Al Muthana	Al -HALAL Village	60	50	2	S.C	3000
03-02-00179		Al Muthana	Al -HALAL w.t.p	100	50	2	S.C	1500
03-02-00180		Al Muthana	Storm Station	100	20	20	S.C	1500
03-02-00181		Al Muthana	Storm Station	150	20	20	S.C	1500
03-02-00182		Al Muthana	Storm Station	200	20	10	S.C	1500
03-02-00183		Al Muthana	Al Warka W.T.P	300	20	3	S.C	1500
03-02-00184		Al Muthana	Al Warka W.T.P	216	60	4	S.C	1500
03-02-00185		Al Muthana	Al Warka W.T.P	216	90	6	S.C	1500
03-02-00186		Al Muthana	Al Warka W.T.P	216	15	2	S.C	1500
03-02-00187		Al Muthana	Ramathan Boosting	500	40	3	S.C	1500
03-02-00188		Al Muthana	Al Karama Boosting	100	70	8	S.C	3000
03-02-00189		Al Muthana	Al Majed - Al -Mamlaha B.S	300	70	6	S.C	1500
03-02-00190		Al Muthana	Al Mamlaha B.S	216	60	10	S.C	1500
03-02-00191		Al Muthana	Al -Entsar B.S	100	40	6	S.C	1500
03-02-00192		Al Muthana	Al Rsala Residenital Building	100	60	6	S.C	1500
03-02-00193		Al Muthana	Al Askan Residenital Building	25	20	1	S.C	1500
03-02-00194		Al Muthana	New Project	675	90	5	S.C	1500
03-02-00195		Al Muthana	New Project	810	15	5	S.C	1500
03-02-00196		Al Muthana	Al Kader w.t.p	216	40	8	S.C	1500
03-02-00197		Al Muthana	Al Sakak Houses	120	50	3	S.C	1500
03-02-00198		Al Muthana	New Rumaitha W.T.P	700	80	5	S.C	1500
03-02-00199		Al Muthana	New Rumaitha W.T.P	200	60	8	S.C	1500
03-02-00200		Al Muthana	New Rumaitha W.T.P	800	12	5	S.C	1500
03-02-00201		Al Muthana	New Rumaitha W.T.P	510	15	3	S.C	1500
03-02-00202		Al Muthana	New Rumaitha W.T.P	300	15	3	S.C	1500
03-02-00203		Al Muthana	New Rumaitha W.T.P	375	90	3	S.C	1500
03-02-00204		Al Muthana	New Rumaitha W.T.P	180	90	2	S.C	1500
03-02-00205		Al Muthana	New Rumaitha W.T.P	200	70	8	S.C	1500
03-02-00206		Al Muthana	New Rumaitha W.T.P	20	20	2	S.C	1500
03-02-00207		Al Muthana	New Rumaitha W.T.P	100	50	2	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00208		Al Muthana	New Rumaitha W.T.P	600	21	8	S.C	1500
03-02-00209		Al Muthana	New Rumaitha W.T.P	800	12	3	S.C	1500
03-02-00210		Diala	Al Abara W.T.P	160	11	3	S.C	1500
03-02-00211		Diala	Abo -Sadia W.T.P	600	8	1	S.C	1500
03-02-00212		Diala	Abo -Sadia W.T.P	315	15	3	S.C	1500
03-02-00213		Diala	Abo -Sadia W.T.P	90	60	2	S.C	1500
03-02-00214		Diala	Abo -Sadia W.T.P	200	60	8	S.C	1500
03-02-00215		Diala	Baladroz W.T.P	210	20	3	S.C	1500
03-02-00216		Diala	Baladroz W.T.P	210	30	2	S.C	1500
03-02-00217		Diala	Baladroz W.T.P	220	60	8	S.C	1500
03-02-00218		Diala	Baladroz W.T.P	110	60	4	S.C	1500
03-02-00219		Diala	Baladroz W.T.P	100	60	4	S.C	1500
03-02-00220		Diala	Baladroz W.T.P	75	60	2	S.C	3000
03-02-00221		Diala	Baladroz W.T.P	110	30	6	S.C	1500
03-02-00222		Diala	Old Al Muqdadiya W.T.P.	350	11	3	S.C	1500
03-02-00223		Diala	Old Al Muqdadiya W.T.P.	180	50	3	S.C	1500
03-02-00224		Diala	Beni - Saad W.T.P	410	10	11	S.C	1500
03-02-00225		Diala	Beni - Saad W.T.P	160	50	6	S.C	1500
03-02-00226		Diala	Beni - Saad W.T.P	200	60	5	S.C	1500
03-02-00227		Diala	Beni - Saad W.T.P	350	60	4	S.C	1500
03-02-00228		Diala	Kanaan W.T.P	200	15	2	S.C	1500
03-02-00229		Diala	Kanaan W.T.P (M.S)	65	91	2	S.C	1500
03-02-00230		Diala	Kanaan W.T.P	135	75	2	S.C	1500
03-02-00231		Diala	Kanaan W.T.P	65	52	2	S.C	3000
03-02-00232		Diala	Kanaan W.T.P	360	11	2	S.C	1500
03-02-00233		Diala	Al Khalis W.T.P	675	35	6	S.C	1500
03-02-00234		Diala	Al Khalis W.T.P	780	30	6	S.C	1500
03-02-00235		Diala	Al Khalis W.T.P	625	30	10	S.C	1500
03-02-00236		Diala	Al Khalis W.T.P (M.S)	100	100	8	S.C	1500
03-02-00237		Diala	Baquba W.T.P	1050	10	5	S.C	1500
03-02-00238		Diala	Baquba W.T.P	600	20	3	S.C	1500
03-02-00239		Diala	Baquba W.T.P	300	68	8	S.C	1500
03-02-00240		Diala	Baquba W.T.P	420	100	4	S.C	1500
03-02-00241		Diala	Baquba W.T.P	420	36	4	S.C	1500
03-02-00242		Diala	Baquba W.T.P	300	100	6	S.C	1500
03-02-00243		Diala	Khanaqin W.T.P	250	125	8	S.C	1500
03-02-00244		Diala	Khanaqin W.T.P	630	12	5	S.C	1500
03-02-00245		Diala	Boosting Station	600	70	6	S.C	1500
03-02-00246		Diala	Boosting Station	60	50	2	S.C	3000
03-02-00247		Diala	Boosting Station	160	50	2	S.C	1500
03-02-00248		Diala	Boosting Station	120	82	6	S.C	1500
03-02-00249		Diala	Jalwla W.T.P	420	36	3	S.C	1500
03-02-00250		Diala	Jalwla W.T.P	400	40	8	S.C	1500
03-02-00251		Diala	Jalwla W.T.P	250	70	8	S.C	1500
03-02-00252		Diala	Jalwla W.T.P	275	12	4	S.C	1500
03-02-00253		Diala	Qura - Taba W.T.P	312	30	4	S.C	1500
03-02-00254		Diala	Qura - Taba W.T.P	86	68	4	S.C	3000
03-02-00255		Diala	Qura - Taba W.T.P (M.S)	60	96	8	S.C	1500
03-02-00256		Diala	Qura - Taba W.T.P	90	66	4	S.C	3000

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00257		Diala	Qura - Taba W.T.P	450	24	2	S.C	1500
03-02-00258		Diala	Qura - Taba W.T.P (M.S)	50	100	6	S.C	1500
03-02-00259		Diala	Al Munathraa W.T.P (M.S)	100	100	3	S.C	1500
03-02-00260		Diala	Al Tahrer W.T.P	630	20	2	S.C	1000
03-02-00261		Diala	Al Tahrer W.T.P	550	36	2	S.C	1500
03-02-00262		Thiqar	Nasseriah Unified W.T.P	820	20	6	S.C	1500
03-02-00263		Thiqar	Nasseriah Unified W.T.P	796	170	12	S.C	1500
03-02-00264		Thiqar	Nasseriah Unified W.T.P	900	30	12	S.C	1000
03-02-00265		Thiqar	Al Shatra W.T.P	575	20	9	S.C	1500
03-02-00266		Thiqar	Al Shatra W.T.P	575	65	9	S.C	1500
03-02-00267		Thiqar	Al Refayi W.T.P	250	50	12	S.C	1500
03-02-00268		Thiqar	Al Refayi W.T.P	300	20	12	S.C	1500
03-02-00269		Thiqar	Al Refayi W.T.P	300	20	2	S.C	1500
03-02-00270		Thiqar	Al Refayi Village W.T.P	125	20	6	S.C	1500
03-02-00271		Thiqar	Al Refayi Village W.T.P	120	40	6	S.C	1500
03-02-00272		Thiqar	Qalaat Sukkur W.T.P	420	40	12	S.C	1500
03-02-00273		Thiqar	Qalaat Sukkur W.T.P	420	20	6	S.C	1500
03-02-00274		Thiqar	Qalaat Sukkur W.T.P	90	60	12	S.C	3000
03-02-00275		Thiqar	Qalaat Sukkur W.T.P (M.S)	90	100	12	S.C	1500
03-02-00276		Thiqar	Qalaat Sukkur W.T.P	600	20	6	S.C	1500
03-02-00277		Thiqar	Al -Fajer W.T.P	60	40	6	S.C	1500
03-02-00278		Thiqar	Al -Fajer W.T.P	64	20	12	S.C	1500
03-02-00279		Thiqar	Al -Nasir W.T.P	60	40	12	S.C	1500
03-02-00280		Thiqar	Al -Nasir W.T.P	64	20	12	S.C	1500
03-02-00281		Thiqar	Suq Al - Shuqi W.T.P	205	40	3	S.C	1500
03-02-00282		Thiqar	Suq Al - Shuqi W.T.P	120	50	3	S.C	1500
03-02-00283		Thiqar	Wafah Al -Qaid Boosting	600	100	12	S.C	1500
03-02-00284		Thiqar	Garmat -Beni -Saeed W.T.P	60	40	9	S.C	3000
03-02-00285		Thiqar	Garmat -Beni -Saeed W.T.P	64	20	3	S.C	1500
03-02-00286		Thiqar	Al Fahod W.T.P	200	40	8	S.C	1500
03-02-00287		Thiqar	Al Fahod W.T.P	205	30	8	S.C	1500
03-02-00288		Thiqar	Al Dawyia W.T.P	90	20	8	S.C	1500
03-02-00289		Thiqar	Al Dawyia W.T.P	90	40	3	S.C	1500
03-02-00290		Thiqar	Al Baathya W.T.P	200	40	8	S.C	1500
03-02-00291		Thiqar	Al Baathya W.T.P	200	20	8	S.C	1500
03-02-00292		Thiqar	Al Eslah W.T.P	90	40	8	S.C	1500
03-02-00293		Thiqar	Al Eslah W.T.P	90	20	3	S.C	1500
03-02-00294		Thiqar	Old Nasseriah W.T.P	250	30	8	S.C	1500
03-02-00295		Thiqar	Old Nasseriah W.T.P	250	50	8	S.C	1500
03-02-00296		Salaheldeen	Tikrit W.T.P 2 nd stage	850	41	8	S.C	1500
03-02-00297		Salaheldeen	Tikrit W.T.P 2 nd stage	750	57	8	S.C	1500
03-02-00298		Salaheldeen	Old Tikrit W.T.P	450	60	8	S.C	1500
03-02-00299		Salaheldeen	Old Tikrit W.T.P	400	40	8	S.C	1500
03-02-00300		Salaheldeen	Al Ougi W.T.P	200	25	8	S.C	1500
03-02-00301		Salaheldeen	Al Ougi W.T.P	120	60	9	S.C	1500

Code	Governorate		Project Name	Q m ³ /h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00302		Salaheldeen	Al Ailam W.T.P	250	30	4	S.C	1500
03-02-00303		Salaheldeen	Al Ailam W.T.P (M.S)	60	60	12	S.C	1500
03-02-00304		Salaheldeen	New Al Dor W.T.P	430	25	3	S.C	1500
03-02-00305		Salaheldeen	New Al Dor W.T.P	414	50	8	S.C	1500
03-02-00306		Salaheldeen	New Al Dor W.T.P	300	80	6	S.C	1500
03-02-00307		Salaheldeen	Old Al Dor W.T.P	250	50	8	S.C	1500
03-02-00308		Salaheldeen	Old Al Dor W.T.P	60	40	8	S.C	3000
03-02-00309		Salaheldeen	Al - Sharqid W.T.P	350	25	8	S.C	1500
03-02-00310		Salaheldeen	Al - Sharqid W.T.P	225	40	4	S.C	1500
03-02-00311		Salaheldeen	Al - Sharqid W.T.P	120	100	8	S.C	3000
03-02-00312		Salaheldeen	Al - Sharqid W.T.P	288	25	6	S.C	1500
03-02-00313		Salaheldeen	Al - Sharqid W.T.P	288	40	6	S.C	1500
03-02-00314		Salaheldeen	Old Al - Sharqid W.T.P	150	25	4	S.C	1500
03-02-00315		Salaheldeen	Old Al - Sharqid W.T.P	96	30	4	S.C	1500
03-02-00316		Salaheldeen	Al - Sharqid Villiage W.T.P	350	25	6	S.C	1500
03-02-00317		Salaheldeen	Al - Sharqid Villiage W.T.P	120	100	6	S.C	3000
03-02-00318		Salaheldeen	Al - Sharqid W.T.P No. (2)	210	25	6	S.C	1500
03-02-00319		Salaheldeen	Al -Sharqid W.T.P No. (2)	144	40	8	S.C	1500
03-02-00320		Salaheldeen	Al -Fairs W.T.P	95	20	2	S.C	1500
03-02-00321		Salaheldeen	Al -Fairs W.T.P	95	60	4	S.C	1500
03-02-00322		Salaheldeen	Al -Tarmiyah W.T.P	90	20	2	S.C	1500
03-02-00323		Salaheldeen	Al -Tarmiyah W.T.P	90	50	2	S.C	1500
03-02-00324		Salaheldeen	Old Dozz W.T.P	180	80	2	S.C	1500
03-02-00325		Salaheldeen	Samarra W.T.P	800	60	8	S.C	1500
03-02-00326		Salaheldeen	Samarra W.T.P	450	50	3	S.C	1500
03-02-00327		Salaheldeen	Al -Fairs W.S.S	1495	15	4	S.C	1500
03-02-00328		Salaheldeen	New Balad W.T.P	250	20	6	S.C	1500
03-02-00329		Salaheldeen	Ishaqi - Uthrap W.T.P	130	30	1	S.C	1500
03-02-00330		Salaheldeen	Ishaqi - Uthrap W.T.P	90	60	1	S.C	1500
03-02-00331		Salaheldeen	Ishaqi - Uthrap W.T.P	360	102	4	S.C	1500
03-02-00332		Salaheldeen	Ishaqi - Uthrap W.T.P	420	82	4	S.C	1500
03-02-00333		Salaheldeen	Ishaqi - Uthrap W.T.P	575	20	2	S.C	1500
03-02-00334		Salaheldeen	Balad W.S.S.	250	25	2	S.C	1500
03-02-00335		Salaheldeen	Balad W.S.S.	500	25	4	S.C	1500
03-02-00336		Salaheldeen	New Al -Thoayia W.S.S	250	25	4	S.C	1500
03-02-00337		Salaheldeen	Old Al -Thoayia W.S.S	250	25	4	S.C	1500
03-02-00338		Salaheldeen	New Al -Thoayia W.S.S	210	45	6	S.C	1500
03-02-00339		Salaheldeen	Old Al -Thoayia W.S.S	210	45	6	S.C	1500
03-02-00340		Baghdad	Old Madain W.T.P.	264	68	6	S.C	1500
03-02-00341		Baghdad	Old Madain W.T.P.	264	12	8	S.C	1500
03-02-00342		Baghdad	New Madain W.T.P.	900	17	8	S.C	1500
03-02-00343		Baghdad	Al Rashidya W.T.P	780	14	6	S.C	1500
03-02-00344		Baghdad	Al -Muhmodia W.T.P.	1050	15	4	S.C	1500
03-02-00345		Baghdad	Al -Muhmodia W.T.P.	1000	37	8	S.C	1500
03-02-00346		Baghdad	Al -Muhmodia B.S.	500	15	5	S.C	1500
03-02-00347		Baghdad	Al- Lateffai W.T.P	300	15	3	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00348		Baghdad	Al- Lateffai W.T.P	300	5	3	S.C	1500
03-02-00349		Baghdad	Al- Lateffai W.T.P	100	30	2	S.C	1500
03-02-00350		Baghdad	Al-Rashida W.T.P	183	11	3	S.C	1500
03-02-00351		Baghdad	Al-Rashida W.T.P	800	11	3	S.C	1500
03-02-00352		Baghdad	Al-Rashida W.T.P	450	55	2	S.C	1500
03-02-00353		Baghdad	Al-Rashida W.T.P	195	60	2	S.C	1500
03-02-00354		Baghdad	Al-Rashida W.T.P	150	58	2	S.C	1500
03-02-00355		Baghdad	Al-Rashida W.T.P	735	40	3	S.C	1500
03-02-00356		Baghdad	Al-Rashida W.T.P	600	12	3	S.C	1500
03-02-00357		Baghdad	Al-Nahrawin Boosting	500	80	2	S.C	1500
03-02-00358		Baghdad	Al-Nahrawin Boosting	1000	85	3	S.C	1500
03-02-00359		Najaf	Najaf W.T.P	2280	196	2	S.C	1500
03-02-00360		Kerbala	Jadwal Al-Gharbi W.T.P	120	40	2	S.C	1500
03-02-00361		=	Jadwal Al-Gharbi W.T.P	120	20	2	S.C	1500
03-02-00362		=	Jadwal Al-Gharbi W.T.P	60	40	2	S.C	3000
03-02-00363		=	Jadwal Al-Gharbi W.T.P	60	20	2	S.C	1500
03-02-00364		=	Boosting Station	1200	42	3	S.C	1500
03-02-00365		=	Project No. (7)	1400	17	6	S.C	1000
03-02-00366		=	Project No. (7)	1350	50	6	S.C	1000
03-02-00367		=	Project No. (7)	540	9	4	S.C	1000
03-02-00368		=	Ain -Tamer Boosting Station	350	100	3	S.C	1500
03-02-00369		=	Al-Uriba Boosting Station	1200	40	3	S.C	1500
03-02-00370		=	Al-Hindaya W.T.P	735	25	4	S.C	1500
03-02-00371		=	Al-Hindaya W.T.P	445	46	4	S.C	1500
03-02-00372		=	Al-Hindaya W.T.P	333	60	3	S.C	1500
03-02-00373		=	Al-Hindaya W.T.P	1200	25	2	S.C	1500
03-02-00374		=	Al-Hindaya W.T.P	762	30	3	S.C	1500
03-02-00375		=	Sewage Project	500	30	2	S.C	1000
03-02-00376		=	Old Al-Hindaya W.T.P	160	25	3	S.C	1500
03-02-00377		=	Old Al-Hindaya W.T.P	150	60	4	S.C	1500
03-02-00378		Babil	New -Hilla W.T.P	1600	7	2	S.C	1000
03-02-00379		taameem	Different Place	540	70	10	S.C	1500
03-02-00380		=	Different Place	900	30	10	S.C	1500
03-02-00381		=	Al Zap Unified W.T.P (M.S)	100	80	6	S.C	1500
03-02-00382		=	Al Zap W.T.P (M.S)	90	100	3	S.C	1500
03-02-00383		=	Al Zap Village (M.S) W.T.	80	60	4	S.C	1500
03-02-00384		=	Al Zap Village (M.S) W.T.	85	20	4	S.C	1500
03-02-00385		=	Al Reyadh Village W.T.	312	20	3	S.C	1500
03-02-00386		=	Al Reyadh W.T.	200	60	6	S.C	1500
03-02-00387		=	Al Reyadh W.T.	220	20	6	S.C	1500
03-02-00388		taameem	Al Abassy w.t.	140	70	2	S.C	1500
03-02-00389		=	Al Abassy w.t.	160	20	2	S.C	1500
03-02-00390		=	Al Daquk w.t.p	375	60	4	S.C	1500
03-02-00391		=	Al Daquk w.t.p	380	20	3	S.C	1500
03-02-00392		=	Taza W.T.	260	60	2	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00393	=		Taza W.T.	280	20	2	S.C	1500
03-02-00394	=		Hassan Village W.T.	80	20	2	S.C	1500
03-02-00395	=		Hassan Village W.T.	70	60	2	S.C	3000
03-02-00396	=		Tal Ali W.T.	150	70	4	S.C	1500
03-02-00397	=		Tal Ali W.T.	160	30	4	S.C	1500
03-02-00398	=		Al Toon Kobry W.T.	400	60	4	S.C	1500
03-02-00399	=		Al Toon Kobry W.T.	420	20	4	S.C	1500
03-02-00400	=		Al DEBIS W.T.	600	20	4	S.C	1500
03-02-00401	=		Al DEBIS W.T.	800	20	3	S.C	1500
03-02-00402	=		Al DEBIS W.T.	600	20	4	S.C	1500
03-02-00403	=		Al DEBIS W.T.	300	60	6	S.C	1500
03-02-00404	=		Al DEBIS W.T./3300 volts	500	500	2	S.C	1500
03-02-00405		Qadeseaya	Diwaniya W.T. *	1150	17	6	S.C	1500
03-02-00406	=		Diwaniya W.T. *	1000	16	6	S.C	1500
03-02-00407	=		Diwaniya W.T. *	225	64	2	S.C	1500
03-02-00408	=		Diwaniya W.T. *	350	21	1	S.C	1500
03-02-00409	=		Diwaniya W.T. *	600	10	1	S.C	1500
03-02-00410	=		Diwaniya W.T. *	1000	53	6	S.C	1500
03-02-00411	=		Diwaniya W.T. *	300	33	4	S.C	1500
03-02-00412	=		Diwaniya W.T. *	300	15	4	S.C	1500
03-02-00413	=		Diwaniya W.T. *	590	17	6	S.C	1500
03-02-00414	=		Al Shameayah W.T.	425	40	4	S.C	1500
03-02-00415	=		Al Shameayah W.T.	290	55	4	S.C	1500
03-02-00416	=		Al Shameayah W.T.	270	53	4	S.C	1500
03-02-00417	=		Al Shameayah W.T.	261	53	4	S.C	1500
03-02-00418	=		Al Qammas W.T.	150	40	6	S.C	1500
03-02-00419	=		Al Qammas W.T.	200	20	6	S.C	1500
03-02-00420	=		Al Bdeer W.T.	150	20	6	S.C	1500
03-02-00421	=		Al Bdeer W.T.	90	40	6	S.C	1500
03-02-00422	=		Al Dagara W.T.	300	24	4	S.C	1500
03-02-00423	=		Al Dagara W.T. (M.S)	90	84	4	S.C	3000
03-02-00424	=		Al Dagara W.T. (M.S)	150	73	4	S.C	1500
03-02-00425		Nenewa	Al-Mousel right bank w.t	1440	35	12	S.C	1500
03-02-00426	=		Al-Mousel right bank w.t	1380	90	8	S.C	1500
03-02-00427	=		Al-Mousel right bank w.t	1380	60	8	S.C	1500
03-02-00428	=		Al-Mousel right bank w.t	960	60	8	S.C	1500
03-02-00429	=		Al-Mousel lift bank w.t	1000	30	9	S.C	1500
03-02-00430	=		Al-Mousel lift bank w.t	960	60	9	S.C	1500
03-02-00431	=		Al-Mousel lift bank w.t	1190	80	9	S.C	1500
03-02-00432	=		Al-Mousel lift bank w.t	1190	53	8	S.C	1500
03-02-00433	=		Al-Mousel lift bank w.t	1000	80	8	S.C	1500
03-02-00434	=		Al-Mousel lift bank w.t	130	55	8	S.C	1500
03-02-00435	=		Hamam Al-Alel W.T.P	200	40	8	S.C	1500
03-02-00436	=		Hamam Al-Alel W.T.P	250	20	8	S.C	1500
03-02-00437	=		Al-Hather W.T.P	300	190	6	S.C	1500
03-02-00438	=		Al-Hather W.T.P	350	75	8	S.C	1500
03-02-00439	=		Al-Baiaj W.T.P	150	20	8	S.C	1500
03-02-00440	=		Makhmor W.T.P	400	50	8	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00441	=		Makhmor W.T.P	60	70	8	S.C	1500
03-02-00442	=		Makhmor W.T.P	100	120	8	S.C	1500
03-02-00443	=		Makhmor W.T.P	200	20	8	S.C	1500
03-02-00444	=		Al-Hamdanya W.T.P	200	60	8	S.C	1500
03-02-00445	=		Al-Hamdanya W.T.P	600	40	8	S.C	1500
03-02-00446	=		Al-Hamdanya W.T.P	210	35	8	S.C	1500
03-02-00447		Nenewa	Al-Shikan W.T.P	90	30	5	S.C	1500
03-02-00448	=		Rabia a W.T.P	150	20	2	S.C	1500
03-02-00449	=		Tal Akaif W.T.P (M.S)	100	255	8	S.C	1500
03-02-00450	=		Tal Akaif W.T.P	100	20	8	S.C	1500
03-02-00451	=		Tal Akaif W.T.P (M.S)	600	180	8	S.C	1500
03-02-00452	=		Tal Akaif W.T.P (M.S)	200	116	8	S.C	1500
03-02-00453	=		Tal Akaif W.T.P	1200	47	8	S.C	1500
03-02-00454	=		Singaar W.T.P	60	80	12	S.C	1500
03-02-00455	=		Hamadit W.T.P	90	30	8	S.C	1500
03-02-00456	=		Hamadit W.T.P	60	40	8	S.C	1500
03-02-00457	=		Hamadit W.T.P	90	50	2	S.C	1500
03-02-00458	=		Hamadit W.T.P	60	40	2	S.C	1500
03-02-00459	=		Zemar W.T.P	61	36	2	S.C	1500
03-02-00460	=		Zemar W.T.P (M.S)	210	25	6	S.C	1500
03-02-00461	=		Al-Kaira W.T.P	144	30	6	S.C	1500
03-02-00462	=		Al-Kaira W.T.P	144	50	6	S.C	1500
03-02-00463	=		Al-Kaira W.T.P	60	30	6	S.C	1500
03-02-00464	=		Al-Shora W.T.P	300	40	4	S.C	1500
03-02-00465	=		Al-Shora W.T.P	144	30	4	S.C	1500
03-02-00466	=		Al-Shora W.T.P	280	80	6	S.C	1500
03-02-00467	=		Al-Shora W.T.P	50	75	4	S.C	1500
03-02-00468	=		Al-Rashidya w.t.p	150	15	8	S.C	1500
03-02-00469	=		Al-Rashidya w.t.p	100	15	8	S.C	1500
03-02-00470	=		Al-Rashidya w.t.p (M.S)	100	100	6	S.C	1500
03-02-00471	=		Tal afer W.T.P	1050	15	12	S.C	1500
03-02-00472	=		Tal afer W.T.P	850	115	8	S.C	1500
03-02-00473	=		Tal afer W.T.P	250	200	12	S.C	1500
03-02-00474	=		Tal afer W.T.P	300	18	8	S.C	1500
03-02-00475	=		Tal afer W.T.P	600	125	8	S.C	1500
03-02-00476	=		Tal afer W.T.P	90	50	6	S.C	1500
03-02-00477	=		Tal afer W.T.P	300	50	6	S.C	1500
03-02-00478	=		Tal afer W.T.P (M.S)	240	150	8	S.C	1500
03-02-00479	=		Tal afer W.T.P(M.S)	60	140	4	S.C	1500
03-02-00480	=		Al-Hamadanya W.T.P	720	30	8	S.C	1500
03-02-00481	=		Al-Hamadanya W.T.P	900	165	8	S.C	1500
03-02-00482	=		Al-Hamadanya W.T.P	120	40	2	S.C	1500
03-02-00483	=		Al-Hamadanya W.T.P	180	90	2	S.C	1500
03-02-00484	=		Al-Hamadanya W.T.P	780	52	2	S.C	1500
03-02-00485	=		Al-Hamadanya W.T.P	500	40	3	S.C	1500
03-02-00486	=		Gir -Gaber W.T.P (M.S)	150	125	8	S.C	1500
03-02-00487	=		Gir -Gaber W.T.P	150	20	4	S.C	1500
03-02-00488	=		Gir -Gaber W.T.P (M.S)	90	90	3	S.C	1500
03-02-00489	=		Gir -Gaber W.T.P (M.S)	90	100	3	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00490		=	Gir -Gaber W.T.P	90	30	3	S.C	1500
03-02-00491		=	Gir -Gaber W.T.P	150	30	4	S.C	1500
03-02-00492		Nenewa	Al - Quraj W.T.P	400	35	8	S.C	1500
03-02-00493		=	Al - Quraj W.T.P	200	150	6	S.C	1500
03-02-00494		=	Al - Quraj W.T.P	90	60	4	S.C	1500
03-02-00495		=	Al - Quraj W.T.P (M.S)	150	100	4	S.C	1500
03-02-00496		=	Al-Kware W.T.P	550	40	4	S.C	1500
03-02-00497		=	Al-Kware W.T.P	180	70	2	S.C	1500
03-02-00498		=	Al-Kware W.T.P (M.S)	90	100	2	S.C	1500
03-02-00499		=	Al-Dindin W.T.P	650	60	4	S.C	1500
03-02-00500		=	Al-Dindin W.T.P	45	15	4	S.C	1500
03-02-00501		=	Al-Kware W.T.P	900	8	2	S.C	1000
03-02-00502		=	Al-Kware W.T.P (M.S)	100	200	2	S.C	1500
03-02-00503		=	Dabaka W.T.P(M.S)	75	200	2	S.C	1500
03-02-00504		=	Tal a fer W.T.P(M.S)	250	200	4	S.C	1500
03-02-00505		=	Tal a fer W.T.P(M.S)	150	200	2	S.C	1500
03-02-00506		=	Makhmor W.T.P (M.S)	150	200	6	S.C	1500
03-02-00507		=	Makhmor W.T.P	100	60	2	S.C	1500
03-02-00508		=	Makhmor W.T.P (M.S)	100	125	4	S.C	1500
03-02-00509		=	Makhmor W.T.P	200	20	4	S.C	1500
03-02-00510		=	Makhmor W.T.P (M.S)	400	160	3	S.C	1500
03-02-00511		=	Qadissia Boosting Station	200	35	6	S.C	1500
03-02-00512		=	Boosting Station inside mosul	400	50	6	S.C	1500
03-02-00513		=	Boosting Station inside mosul	90	60	4	S.C	1500
03-02-00514		=	Boosting Station inside mosul	400	60	6	S.C	1500
03-02-00515		=	Boosting Station inside mosul	144	40	6	S.C	1500
03-02-00516		=	Boosting Station inside mosul	500	60	4	S.C	1500
03-02-00517		=	Boosting Station inside mosul	500	50	4	S.C	1500
03-02-00518		=	Boosting Station inside mosul	60	40	9	S.C	1500
03-02-00519		=	Boosting Station inside mosul	400	50	2	S.C	1500
03-02-00520		=	Boosting Station inside mosul	500	60	8	S.C	1500
03-02-00521		=	Boosting Station inside mosul	640	80	4	S.C	1500
03-02-00522		=	Boosting Station inside mosul	500	60	6	S.C	1500
03-02-00523		=	Boosting Station inside mosul	400	50	7	S.C	1500
03-02-00524		=	Boosting Station inside mosul	500	50	3	S.C	1500

Code	Governorate		Project Name	Q m ³ /h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00525		Nenewa	Boosting Station inside mosul	250	40	3	S.C	1500
03-02-00526		=	Boosting Station inside mosul	20	40	2	S.C	1500
03-02-00527		=	Boosting Station inside mosul	144	60	14	S.C	1500
03-02-00528		=	Boosting Station inside mosul	200	60	2	S.C	1500
03-02-00529		=	Boosting Station inside mosul	600	50	3	S.C	1500
03-02-00530		=	Boosting Station inside mosul	250	60	2	S.C	1500
03-02-00531		=	Boosting Station inside mosul	300	60	4	S.C	1500
03-02-00532		Anbar	Ramadi W.T.P	1000	68	2	S.C	1500
03-02-00533		=	New Ramadi W.T.P	300	20	4	S.C	1500
03-02-00534		=	Al-Fallaja W.T.P	700	80	4	S.C	1500
03-02-00535		=	Old Al-Fallaja W.T.P	350	50	4	S.C	1500
03-02-00536		=	Al-Namaia W.T.P	250	50	4	S.C	1500
03-02-00537		=	Unified Heet -Kabasia w.t.p	350	60	2	S.C	1500
03-02-00538		=	Kabasia W.T.P	150	160	2	S.C	1500
03-02-00539		=	Unified Heet -Kabasia w.t.p	60	53	2	S.C	1500
03-02-00540		=	Unified Heet w.t.p	30	61	2	S.C	1500
03-02-00541		=	Unified Heet Village w.t.p	210	51	3	S.C	1500
03-02-00542		=	Old Heet w.t.p	250	40	2	S.C	1500
03-02-00543		=	Old Heet w.t.p	250	60	2	S.C	1500
03-02-00544		=	Yogaslive W.T.P	200	60	6	S.C	1500
03-02-00545		=	Al-Frait W.T.P	150	60	2	S.C	1500
03-02-00546		=	Al-Karma W.T.P	700	50	2	S.C	1500
03-02-00547		=	Al-Karhol Line	320	57	2	S.C	1500
03-02-00548		=	Al-Samah line	240	62	8	S.C	1500
03-02-00549		=	Al-Karma W.T.P	600	10	6	S.C	1500
03-02-00550		=	Al-Karma W.T.P	750	60	4	S.C	1500
03-02-00551		=	West -desert W.T.P	700	190	20	S.C	1500
03-02-00552		=	West -desert W.T.P	700	171	6	S.C	1500
03-02-00553		=	West -desert W.T.P	600	200	6	S.C	1500
03-02-00554		=	West -desert W.T.P	600	132	6	S.C	1500
03-02-00555		=	West -desert W.T.P	600	250	6	S.C	1500
03-02-00556		=	West -desert W.T.P& Al-Qaim	375	70	13	S.C	1500
03-02-00557		=	Deferent Sites	1000	70	70	S.C	1500
03-02-00558		=	Rawa W.T.P	200	70	6	S.C	1500
03-02-00559		=	Rawa W.T.P	180	90	6	S.C	1500
03-02-00560		=	Rawa W.T.P	150	70	4	S.C	1500
03-02-00561		Anbar	Rawa W.T.P	180	80	4	S.C	1500
03-02-00562		=	Al-Tharther W.T.P	105	150	8	S.C	1500

Code	Governorate		Project Name	Q m3/h	H mt.	Qty	Motor	
	Cod e no.	Name					Type	R P.M
03-02-00563	=		Al-Tharther W.T.P	50	100	6	S.C	1500
03-02-00564	=		Al-Tharther W.T.P	75	100	2	S.C	1500
03-02-00565	=		Al-Tharther W.T.P	75	75	2	S.C	1500
03-02-00566	=		Al-Eabadey W.T.P	60	20	10	S.C	1500
03-02-00567	=		Al-Eabadey W.T.P	100	80	5	S.C	1500
03-02-00568	=		Al-Ratiba W.T.P	150	100	5	S.C	1500
03-02-00569	=		Al-Habaniya W.T.P	100	55	3	S.C	1500
03-02-00570	=		Al-Habaniya W.T.P	72	40	3	S.C	1500
03-02-00571	=		Al-Habaniya W.T.P	216	40	2	S.C	1500
03-02-00572	=		Anna W.T.P	470	50	9	S.C	1500
03-02-00573	=		Al-Ramadiy W.T.P	1050	20	8	S.C	1500
03-02-00574	=		Al-Ramadiy W.T.P	350	20	4	S.C	1500
03-02-00575	=		Al-Falloja W.T.P	500	40	3	S.C	1500
03-02-00576	=		Al-Falloja W.T.P	410	20	4	S.C	1500
TOTAL						2700		

**Section -10 -
Ball Bearing**

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00577	Nenewa	29324	100
03-02-00578	=	6026	100
03-02-00579	=	7317	250
03-02-00580	=	6317	250
03-02-00581	=	6224	100
03-02-00582	=	7224	100
03-02-00583	=	6226	100
03-02-00584	=	7310	250
03-02-00585	=	7312	250
03-02-00586	=	7313	200
03-02-00587	=	6316	100
03-02-00588	=	6318	100
03-02-00589	=	6319	100
03-02-00590	=	6320	100
03-02-00591	=	6322	100
03-02-00592	=	N4 224 E	150
03-02-00593	=	N3 22N	150
03-02-00594	=	N 312 E	150
03-02-00595	=	N4 322	250
03-02-00596	=	N4 317	250
03-02-00597	=	N4 318	250
03-02-00598	=	N4 319	200
03-02-00599	=	6220	100
03-02-00600	=	6211	150
03-02-00601	=	7214	100
03-02-00602	=	6217	100
03-02-00603	=	6222	100
03-02-00604	=	6314	100
03-02-00605	=	6216	100
03-02-00606	=	6212	100
03-02-00607	=	6306	100
03-02-00608	=	6311	100
03-02-00609	=	6406	100
03-02-00610	=	6308	100
03-02-00611	=	6312	100
03-02-00612	=	6307	100
03-02-00613	=	6309	100
03-02-00614	=	6312	100
03-02-00615	=	6313	100
03-02-00616	=	6411	100
03-02-00617	=	6305	100
03-02-00618	=	6209	100
03-02-00619	=	N4 215	100
03-02-00620	nenewa	3312	50
03-02-00621	Baghdad	6311	40
03-02-00622	=	6308	40
03-02-00623	=	6315	20
03-02-00624	=	6305	20

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00625	=	6306	40
03-02-00626	=	6206	20
03-02-00627	=	6309	20
03-02-00628	=	6310	30
03-02-00629	=	6216	20
03-02-00630	=	6312	20
03-02-00631	=	6414	20
03-02-00632	=	6217	20
03-02-00633	=	6313	20
03-02-00634	=	6205	20
03-02-00635	=	6307	20
03-02-00636	=	6313 C3	30
03-02-00637	=	N 216 - E CP	30
03-02-00638	=	6209 C3	20
03-02-00639	=	6314	25
03-02-00640	=	N 317	25
03-02-00641	=	6310 C3	25
03-02-00642	Najaf	6311	100
03-02-00643	=	6322	115
03-02-00644	=	6319	150
03-02-00645	=	7314	150
03-02-00646	=	6314	100
03-02-00647	=	6212	120
03-02-00648	=	6306	120
03-02-00649	=	6309	120
03-02-00650	=	6324	120
03-02-00651	=	6317	100
03-02-00652	=	6307	100
03-02-00653	=	6313	120
03-02-00654	=	6316	15
03-02-00655	=	6320	20
03-02-00656	=	6311	20
03-02-00657	=	6315	20
03-02-00658	=	313 NU	20
03-02-00659	=	315	20
03-02-00660	Kerbala	MJ 2 1 / 2	32
03-02-00661	=	6320	16
03-02-00662	=	6414	15
03-02-00663	=	6314	40
03-02-00664	=	N U 318	10
03-02-00665	=	6318	20
03-02-00666	=	6307	24
03-02-00667	Kerbala	6306	14
03-02-00668	=	6206	16
03-02-00669	=	6308	20
03-02-00670	=	6310	30
03-02-00671	=	6307	20
03-02-00672	=	6311	12
03-02-00673	=	6312	12
03-02-00674	=	6411	12
03-02-00675	AL-Anbar	6410	90

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00676	=	6305	90
03-02-00677	=	7311	25
03-02-00678	=	314 N S	25
03-02-00679	=	R M S 14	90
03-02-00680	=	R M S 159 / 16	50
03-02-00681	=	1 / 4 / 3	50
03-02-00682	=	1 / 4 / 1	50
03-02-00683	=	6204	10
03-02-00684	=	6304	50
03-02-00685	=	6310	50
03-02-00686	=	6209	50
03-02-00687	=	6321	25
03-02-00688	=	6317	140
03-02-00689	=	6318	25
03-02-00690	=	7321	25
03-02-00691	=	6224	25
03-02-00692	=	N S 624	25
03-02-00693	=	6315	25
03-02-00694	=	6312	25
03-02-00695	=	6307	25
03-02-00696	=	6306	25
03-02-00697	=	7310	25
03-02-00698	=	3301	25
03-02-00699	=	3310	25
03-02-00700	=	6000	75
03-02-00701	=	6205	75
03-02-00702	=	6206	75
03-02-00703	=	6308	75
03-02-00704	=	6309	75
03-02-00705	=	6311	25
03-02-00706	=	6300	50
03-02-00707	=	6312	25
03-02-00708	=	6313	25
03-02-00709	=	6406	25
03-02-00710	=	216	50
03-02-00711	=	212	50
03-02-00712	=	309	25
03-02-00713	=	7320	25
03-02-00714	AL-Anbar	NU 320	50
03-02-00715	=	NU 318	50
03-02-00716	=	NU 311	10
03-02-00717	=	3311	50
03-02-00718	Qadissia	6216	80
03-02-00719	=	6310	60
03-02-00720	=	6314 ZZ	48
03-02-00721	=	6216 Z Z	40
03-02-00722	=	6312 2 R S	80
03-02-00723	=	6211	30
03-02-00724	=	N U - 22125	40
03-02-00725	=	3211	40
03-02-00726	=	6315 / C3	40

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00727	=	N U 2305	40
03-02-00728	=	56207 NA	40
03-02-00729	=	FG 207	40
03-02-00730	=	22216 H C	50
03-02-00731	=	NU P 309 E N	50
03-02-00732	=	63062 Z	25
03-02-00733	=	30207	40
03-02-00734	=	6308 2 R S	90
03-02-00735	=	6317 C 3	80
03-02-00736	=	6320 C 3	40
03-02-00737	=	6321	24
03-02-00738	=	N 321	24
03-02-00739	=	6217	32
03-02-00740	=	N 217	32
03-02-00741	=	6309	80
03-02-00742	=	6311	90
03-02-00743	=	6316	50
03-02-00744	=	6305	100
03-02-00745	=	6414	50
03-02-00746	=	6313	50
03-02-00747	=	N U 316	60
03-02-00748	=	N U 314	60
03-02-00749	=	NU 2220	40
03-02-00750	=	6220 C3	40
03-02-00751	=	7316 B	30
03-02-00752	=	N U 320	30
03-02-00753	=	23026 E S	30
03-02-00754	=	29426 E	30
03-02-00755	=	31315	40
03-02-00756	=	2316 NU	40
03-02-00757	=	23230	8
03-02-00758	=	22316 C	8
03-02-00759	=	24152 C	8
03-02-00760	=	24136 C	8
03-02-00761	Qadissia	7310 B	40
03-02-00762	=	7310 C3	150
03-02-00763	=	7312 C3	150
03-02-00764	Tameem	6310	90
03-02-00765	=	6309	60
03-02-00766	=	6308	50
03-02-00767	=	6307	80
03-02-00768	=	6311	20
03-02-00769	=	6305	46
03-02-00770	=	6306	30
03-02-00771	=	6315	32
03-02-00772	=	6322	30
03-02-00773	=	6210	25
03-02-00774	=	6312	12
03-02-00775	Mesaan	6305	50
03-02-00776	=	6306	50
03-02-00777	=	6308	50

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00778	=	6309	50
03-02-00779	=	6310	50
03-02-00780	=	6311	50
03-02-00781	=	6411	50
03-02-00782	=	6410	50
03-02-00783	=	6314	50
03-02-00784	=	6315	50
03-02-00785	=	6316	50
03-02-00786	=	6317	50
03-02-00787	Muthana	6312 C3	100
03-02-00788	=	7314	100
03-02-00789	=	N 314	120
03-02-00790	=	6308 C3	120
03-02-00791	=	1- 1 / 4	100
03-02-00792	=	N 1 1 / 4	80
03-02-00793	=	N U 222	100
03-02-00794	=	6217	80
03-02-00795	=	6306	150
03-02-00796	=	6308	120
03-02-00797	=	6312	200
03-02-00798	=	6305	200
03-02-00799	=	G 204	100
03-02-00800	=	6212	110
03-02-00801	=	6208	120
03-02-00802	=	6206	150
03-02-00803	=	6315	80
03-02-00804	=	6316	75
03-02-00805	=	6317	100
03-02-00806	=	7314 B	50
03-02-00807	=	314 N	50
03-02-00808	Muthana	222 N	12
03-02-00809	=	6309	50
03-02-00810	=	6310	50
03-02-00811	=	6307	50
03-02-00812	Basrah	692 Z1	170
03-02-00813	=	6407 Z2	180
03-02-00814	=	6211 Z2	160
03-02-00815	=	6410 Z2	190
03-02-00816	=	6314 Z2	300
03-02-00817	=	6309 Z2	300
03-02-00818	=	6294 Z2	150
03-02-00819	=	6313 Z2	300
03-02-00820	=	6308 Z2	300
03-02-00821	=	6209 Z2	175
03-02-00822	=	6305 Z2	160
03-02-00823	=	6210 Z2	160
03-02-00824	=	6310 Z2	175
03-02-00825	=	6306 Z2	300
03-02-00826	=	6406 Z1	300
03-02-00827	=	6311 Z2	300
03-02-00828	=	6312 Z2	190

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00829	=	214 N	45
03-02-00830	=	6307 Z2	300
03-02-00831	=	6315 Z2	160
03-02-00832	=	6206 Z2	190
03-02-00833	=	6205 Z2	190
03-02-00834	=	6202 Z2	130
03-02-00835	=	6203 Z3	140
03-02-00836	Wasit	6305	50
03-02-00837	=	6306	50
03-02-00838	=	6307	50
03-02-00839	=	6308	50
03-02-00840	=	6309	50
03-02-00841	=	6310	50
03-02-00842	=	6311	50
03-02-00843	=	6312	50
03-02-00844	=	6313	50
03-02-00845	=	6314	50
03-02-00846	=	6315	50
03-02-00847	=	6316	50
03-02-00848	=	6317	50
03-02-00849	=	6318	50
03-02-00850	=	6319	50
03-02-00851	=	6320	50
03-02-00852	=	6205	50
03-02-00853	=	6206	50
03-02-00854	=	6207	50
03-02-00855	Wasit	6208	50
03-02-00856	=	6209	50
03-02-00857	=	6210	50
03-02-00858	=	6211	50
03-02-00859	=	6212	50
03-02-00860	=	6213	50
03-02-00861	=	6214	50
03-02-00862	=	6215	50
03-02-00863	=	3305	50
03-02-00864	=	3306	50
03-02-00865	=	3307	50
03-02-00866	=	3308	50
03-02-00867	=	3309	50
03-02-00868	=	3310	50
03-02-00869	=	3311	50
03-02-00870	=	3312	50
03-02-00871	=	3313	50
03-02-00872	=	3314	50
03-02-00873	=	3315	50
03-02-00874	=	3316	50
03-02-00875	=	3317	50
03-02-00876	=	3318	50
03-02-00877	=	3319	50
03-02-00878	=	3320	50
03-02-00879	=	7305	50

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00880	=	7306	50
03-02-00881	=	7307	50
03-02-00882	=	7308	50
03-02-00883	=	7309	50
03-02-00884	=	7310	50
03-02-00885	=	7311	50
03-02-00886	=	7312	50
03-02-00887	=	7313	50
03-02-00888	=	7314	50
03-02-00889	Diala	6308	1900
03-02-00890	=	6315	790
03-02-00891	=	6309	1950
03-02-00892	=	6305	250
03-02-00893	=	6207	200
03-02-00894	=	6209	600
03-02-00895	=	6307	200
03-02-00896	=	6310	5000
03-02-00897	=	6312	2500
03-02-00898	=	6313	600
03-02-00899	=	6409	700
03-02-00900	=	6306	600
03-02-00901	=	R MS 14	2000
03-02-00902	Diala	6216	500
03-02-00903	=	6204	500
03-02-00904	=	6316	300
03-02-00905	=	6206	300
03-02-00906	=	6208	300
03-02-00907	=	633 L Z	300
03-02-00908	=	6410	400
03-02-00909	=	6304	100
03-02-00910	=	R M S 10	300
03-02-00911	=	R M S 12	300
03-02-00912	Salaheldeen	6305	570
03-02-00913	=	6307	420
03-02-00914	=	6308	524
03-02-00915	=	6311	330
03-02-00916	=	6313	300
03-02-00917	=	6315	636
03-02-00918	=	6317	250
03-02-00919	=	6318	310
03-02-00920	=	6319	175
03-02-00921	=	6406	100
03-02-00922	=	6411	120
03-02-00923	=	6312	269
03-02-00924	=	N U 317	150
03-02-00925	=	N U 319	150
03-02-00926	=	NU 322	150
03-02-00927	=	N U 318	150
03-02-00928	=	6205	200
03-02-00929	=	6208	200
03-02-00930	=	6210	200

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00931	=	6212	200
03-02-00932	=	N U 315	220
03-02-00933	=	R M S 10	220
03-02-00934	=	R M S 16 / 15	20
03-02-00935	=	2 R S 6309	16
03-02-00936	=	2 R S 6307	16
03-02-00937	=	2 R S 6306	12
03-02-00938	=	2 R S 6308	16
03-02-00939	=	M J I 3 / 4	20
03-02-00940	=	N U 319	88
03-02-00941	=	N U 219	20
03-02-00942	=	7316	60
03-02-00943	=	N 212	16
03-02-00944	=	N 313	16
03-02-00945	=	6310	168
03-02-00946	=	6309	20
03-02-00947	=	6314	56
03-02-00948	=	6308	8
03-02-00949	Salaheldeen	7309	40
03-02-00950	=	7310	30
03-02-00951	=	7311	120
03-02-00952	=	7312	80
03-02-00953	=	7314	100
03-02-00954	=	N 324	40
03-02-00955	=	6306	60
03-02-00956	=	N U 312	40
03-02-00957	=	6313	20
03-02-00958	=	N U 215	20
03-02-00959	=	N U 216	20
03-02-00960	=	1 3 / 4	50
03-02-00961	=	6317	91
03-02-00962	=	6206	10
03-02-00963	=	R M S 14	50
03-02-00964	=	M Z T 13 / 19	28
03-02-00965	=	6319 NU	25
03-02-00966	=	6318 NU	10
03-02-00967	Thiqar	6004	50
03-02-00968	=	6206	50
03-02-00969	=	6305	103
03-02-00970	=	6306	122
03-02-00971	=	6307	174
03-02-00972	=	6308	92
03-02-00973	=	6309	152
03-02-00974	=	6310	74
03-02-00975	=	6311	95
03-02-00976	=	6312	79
03-02-00977	=	6313	84
03-02-00978	=	6314	64
03-02-00979	=	6315	80
03-02-00980	=	6316	120
03-02-00981	=	6317	90

Code	Gov. name	Ball Bearing no.	Qty.
03-02-00982	=	6207	70
03-02-00983	=	6208	70
03-02-00984	=	6209	70
03-02-00985	=	6210	120
03-02-00986	=	6215	120
03-02-00987	=	6217	110
03-02-00988	=	6406	100
03-02-00989	=	6405	100
03-02-00990	=	3318	300
03-02-00991	=	2211	100
03-02-00992	=	22320	100
03-02-00993	=	N U 320 / C3	100
03-02-00994	=	N U 318	100
03-02-00995	=	3216	100
03-02-00996	Thiqar	3313	100
03-02-00997	=	220	100
03-02-00998	=	N U 218	100
03-02-00999	=	217	50
03-02-01000	=	7317	125
03-02-01001	=	216	100
03-02-01002	=	23026	100
03-02-01003	=	32318	100
03-02-01004	=	2317	200
03-02-01005	=	7411	200
03-02-01006	=	6416	200
03-02-01007	=	7320	70
03-02-01008	=	2209	140
03-02-01009	=	7409	25
03-02-01010	=	N 319	25
03-02-01011	=	6319	20
03-02-01012	=	N 207	20
03-02-01013	=	N 205	25
03-02-01014	=	6318	25
03-02-01015	=	6324	25
03-02-01016	=	2307	25
03-02-01017	=	6328	25
03-02-01018	=	3211	20
03-02-01019	=	6211	26
03-02-01020	=	6212	20
03-02-01021	=	5305	26
03-02-01022	=	6034	24
03-02-01023	=	1305	26
03-02-01024	=	3406	12
03-02-01025	=	6320	12
<i>total</i>			56250

SECTION 11

Mobile work shop truck

Code	Description	Qty
03-02-01026	Mobile work shop truck	100

SECTION 12

Amphibious dredger

Code	Description	Qty
03-02- 01027	Amphibious hydraulic excavator	8
03-02- 01028	Dredger capacity 1000 m ³ hr	2
03-02- 01029	Dredger capacity 500 m ³ hr	2
Total		12

**Section - 13 -
Wheel Loader (Shovels)**

Code	Description	Qty
03-02-01030	Wheel Loader (shovel)	400

SECTION 14

Fork lift

Code	Description	Qty
03-02- 01031	4 WD , diesle enging , hydrostactic transmission , with spare part. A- 5 ton capacity B - (3) ton capacity	150 150
total		300

SECTION 15

Lorry and trailer

Code	Description	Qty
03-02-01032	1- Truck 2ton	400
03-02-01033	2- Lorry 10 ton	80
03-02-01034	3- Lorry 15 ton	80
03-02-01035	4- Trailer with lorry 35 ton	50
03-02-01036	5- Tipping truck with 12 m ³ tipper body	400
03-02-01037	6- Low loader 35 ton	100
Total		1110

SECTION 16

Cars for transport employeres

Code	Description	Qty
03-02-01038	Desil engine , manual gear , capacity 21 passangers , with spare parts.	90
03-02-01039	Benzine engine , manual gear , capacity 14 passangers , with spare parts.	90
03-02-01040	Desil engine , manual gear , capacity 40 passangers , with spare parts.	220
Total		400

SECTION 17

pick up - Cars

Code	Description	Qty
03-02-01041	1 ton capacity benz engine , power steering , 2WD aircondition , 4 doors , with spare parts.	650
03-02-01042	1 ton capacity diesel engine , power steering , 2WD aircondition , 2 doors , with spare parts.	150
03-02-01043	1 ton capacity benz engine , power steering , 4WD aircondition , 4 doors , with spare parts.	200
Total		1000

Section -18- Compressors with jack -Hammer

Code	Description	Qty.
03-02-01044	Air Compressor With spare parts 360 ft/min	100
03-02-01045	Ditto but 250 ft/min .	100
03-02-01046	Ditto but 175 ft/min .	100
03-02-01047	Ditto but pressure (12 - 14) bar	160
TOTAL		460

Section -19- Sewerage Diesel Pumps

tCode	Gov. Name	Project Name	Q (m ³ /hr)	H (m)	Qty
03-02-01048	Basrah	Al-Rebate Sewage B.S.	500	20	20
03-02-01049	=	Al-Ashar Sewage B.S.	50	20	20
03-02-01050	=	Al-Basrah Sewage B.S.	125	20	20
03-02-01051	=	Al-Fao Sewage T. P	250	15	20
03-02-01052	=	Al-Basrah Sewage T. P.	500	15	20
03-02-01053	=	Al-Meaqale W.T.P	50	20	24
03-02-01054	Mesan	Mesan Sewage T.P	500	20	24
03-02-01055	Thiqar	Al-Naserea Sewage T.P	500	20	40
03-02-01056	=	Al-Nasereya Sewage Boosting Station	250	20	20
03-02-01057	=	Al-Nasereya Sewage Boosting Station	500	20	20
03-02-01058	Salaheldeen	Tikreat Sewage T.P	250	12	28
03-02-01059	=	Tikreat Sewage T.P	500	12	8
03-02-01060	Najaf	Al-Najaf Sewage Station	500	15	20
03-02-01061	Al-Tameem	Al-Zab W.T.P	250	15	10
03-02-01062	=	Al-Reayadh W.T.P	250	15	10
03-02-01063	=	Al-Reayadh W.T.P	250	30	8
03-02-01064	=	Al-Haweaga W.T.P	250	15	8
03-02-01065	=	Al-Abbas W.T.P	250	15	100
03-02-01066	=	Different W.T.P	250	15	20
03-02-01067	Baghdad	Water Treatment Projects	50	10	60
03-02-01068	Al-Gov.	Water & Sewage Projects	500	10	40
03-02-01069	=	Water & Sewage Projects	125	30	100

tCode	Gov. Name	Project Name	Q (m ³ /hr)	H (m)	Qty
03-02-01070	=	Water & Sewage Projects	250	15	100
<i>TOTAL</i>					370

SECTION -20-
Vertical Pumps

Complete vertical pump (end suction) type with squirrel cage motor , 400 v, 3 ph, 50 hz, IP 55, class F insulation, B5 with star delta starter (for all items except code no. which are mix flow pump.

- Impeller for vertical pump must be cast iron, shaft must stainless steel.
- Suction pipe from the bottom, delivery pipe must be upper side
- code no. are mix flow pump, casing must be split at the suction flange, made from grained cast iron.
- Impeller, shaft must be stainless steel.
 - shaft bearing and seals should be water lubricated type.
- For both (vertical pump, mix flow pump) must supplied with all required fittings (adaptor) to suit the delivery and suction pipe with stand steel (base plate).
- For each pump must supplied with (star-delta) starter contain :-
 - One) - Main isolating switch with fuses.
 - Two) Contactors, overload relay, timer.
 - Three) Phase failure.
 - Four) On front of steel cabinet, IP 56 indication lamp and push button, ampermeter with selector switch, voltmeter with selector switch.
- Spare parts for each pump
 - a) Impeller
 - b) Shaft
 - Three) Set of ball bearing (pump and motor)
- Motor power must equal (rated power + 10%) .

Code	Gov. Name	Project Name	Q (m ³ /hr)	H (m)	R.P. M.	Shaft length (m)	Qty	Suc.di a. mm	Del. dia. mm
03-02-01071	Basrah	C Sewage lifting station	1100	30	1450	2.1	2	300	250
03-02-01072		Basrah Sewage T.P	180	7.2	720	4.9	2	150	150
03-02-01073		Basrah unified w.t.p.*	1025	20	1480	6.2	5		
03-02-01074		Sewage station No. 14	900	20	1450	2.3	2	300	250
03-02-01075		Sewage station No. 3	250	7	1450	1.75	2	200	150
03-02-01076		Sewage station No.6& No.9	A-450	7	1450	2.25	2	250	200
			B-900	9	1450	2.25	1	300	250
03-02-01077		Sewage station No. 16 &17	3000	12	980	2.45	6	500	500
03-02-01078		The 25 AQUA CU.*	1025	15	1480	6.2	7		350
03-02-01079	Thiqar	Area Sew. Station	500	10	970	5.1	4	250	200
03-02-01080	=	Nasseriah main sewage lifting stat.	1700	10	735	6.15	3	400	350
03-02-01081	=	Nasseriah main sewage lifting stat.	4000	10	585	4.6	1	600	550
03-02-01082	=	Nasseriah Sewa. T.P	250	20	970	7.2	2	250	200
03-02-01083	=	Nasseriah Sewa. T.P	1000	10	975	direct link (Noshaf t)	3	300	250
03-02-01084	=	Nasseriah Sewa. T.P	500	10	970	direct link (Noshaf t)	1	250	200
03-02-01085	=		1080	20	900		24		
03-02-01086	=		360	20	900		19		
03-02-01087	Thiqar		720	20	900		22		

Code	Gov. Name	Project Name	Q (m ³ /hr)	H (m)	R.P. M.	Shaft length (m)	Qty	Suc.di a. mm	Del. dia. mm
03-02-01088	=		540	20	900		18		
03-02-01089	=	Sewage station	180	20	900		20		
03-02-01090	=	Sewage station	1800	20	900		2		
03-02-01091	Najaf	AL-Najaf sew. Project	1746	11.5	980		2		
03-02-01092		AL-Najaf sew. Project	90	12	960		3		
03-02-01093		AL-Najaf sew. Project	162	12.5	1450	motor direct coupled to the pump	2		
03-02-01094		New Water T.P	1630	12	950		6		
03-02-01095	AL-Muthana	ALQitar Boosting Station	100	34	2900		3		
03-02-01096	Nenewa	AL-Mosul (left bank)* w.t.p.	2200	40	900	13.390	4	500	500
03-02-01097	=	AL-Mosul (left bank)* w.t.p.	2200	40	998		4	500	500
03-02-01098	=	Dindan W.T.P	450	15			4		
03-02-01099	=	Left bank W.T.P	1600	10	1450		4		
03-02-01100			435	20	1500		3		
03-02-01101	Babil	Hilla sew. T.P	180	20	1500	motor direct coupled to the pump	2		
03-02-01102	=	Sewage station	4140	16	1500		3		
03-02-01103	Qaddisyia	Diwanya Sewage	432	18	1475		3	10	225
03-02-01104	=	Qaddisyia Sewage	325	14	970		1	225	150
03-02-01105	Salahdeen	Brawjly Borehole	50	132	2900		7		
03-02-01106		Brawjly W.T.P	50	40	2900		2		
03-02-01107		Brawjly Borehole	50	132	2900		4		
total							205		

(*): mixflow pump

SECTION - 21 -
DIESEL GENERATOR FOR WATER AND SEWAGE PROJECTS COMPACT UNITS, ALL GOVERNOR

Code	Rating KVA	KV	Qty.
03-02-01108	30	0.4	307
03-02-01109	75	0.4	545
03-02-01110	100	0.4	112
03-02-01111	150	0.4	60
03-02-01112	250	0.4	83
03-02-01113	400	0.4	54
03-02-01114	500	0.4	68
03-02-01115	650	0.4	31
03-02-01116	850	0.4	27
03-02-01117	1000	0.4	68 * *
03-02-01118	1250	0.4	46 * * *
03-02-01119	1650	11 *	5
03-02-01120	2000	11 *	9
03-02-01121	3500	11 *	10
TOTAL			1525

* The speed of generator sets 750 r.p.m .

** With Synchronizing 8 No.

*** With Synchronizing 10 No. + One off them must be 11 kv

**Section - 22 -
Steel Reinforcement**

a) Specification

All bar steel be high -yield - stress deformed bars complying with BS 4449.

Minimum tensile properties per specified BS.

Yield or characteristic strength f_y is 460 N/mm² for bars 4P to and including 16mm in diameter, and 425 N/mm² for larger bars.

The supplier shall provide the establishment with certificates from the manufactures confirming that all steel supplied is in accordance with above standard .

The supplier have to test aspecimens of the bars {one specimen for each 10000 kg of steel bars} and to be chosen by the establishment in baghdad .The test shall be done by the {National center for construction laboratories } and to be at the supplies expeuse. The test to be according to the above standard .

The steel shall be free from oil , paint , mill scale, dirt and loose rust.

b)Quantity

Code	Bar Size in millimeter	Qty. (ton)
03-02-01122	6	700
03-02-01123	8	3000
03-02-01124	10	20000
03-02-01125	12	25000
03-02-01126	16	15000
03-02-01127	18	15000
03-02-01128	20	1500
03-02-01129	22	1500
03-02-01130	25	10000
03-02-01131	Tie wire	1500
TOTAL		93200

SECTION 23

Cotton And Rubber Rein Forced Hoses Of Different Size

Code	Description	Qty.(Roll)
03-02-01132	1-hose pipe cotton and rubber manufacture reinforced by spiral wire. 75 mm diameter 10 m length complete with coupling and clamp on one side for discharge of preclarified water.(10 bar)	500
03-02-01133	2-Ditto but with size 100mm.	500
03-02-01134	3-Ditto but with size 160mm.	500
03-02-01135	4-Ditto but with size 200mm.	500
03-02-01136	5- hose pipe cotton and rubber manufacture complete with coupling and clamp on one side for discharge for waste water .size 100 mm length 10m (6 bar)	400
03-02-01137	6-Ditto but size 160 mm.	400
	TOTAL	28000 ml

Section -24 -

Wireless System

for Najaf/Kufa Water supply scheme

and Basrah water supply scheme

Code	Governorate name	Project name
03-02-01138	Najaf	For Najaf /Kufa Water Supply Secheme
03-02-01139	Basrah	For Basrah / W. S Secheme

SECTION 25

Crossing rivers pipes

Code	Description	Qty/m
03-02-01140	Ductile iron pipes Thrust resistance Joint (locked -Joint) complete with rubber rings as below :- a- 1000 mm dia	3000
03-02-01141	b- 900 mm dia	3000
03-02-01142	c- 800 mm dia	3000
03-02-01143	d- 700 mm dia	3000
03-02-01144	e- 600 mm dia	5000
03-02-01145	f- 500 mm dia	5000
03-02-01146	g- 450 mm dia	5000
03-02-01147	h- 400 mm dia	5000
03-02-01148	i- 350 mm dia	5000
03-02-01149	j- 300 mm dia	5000
03-02-01150	k- 250 mm dia	5000
03-02-01151	l- 200 mm dia	5000
03-02-01152	m- 150 mm dia	5000
03-02-01153	n- 100 mm dia	5000
Total		62000

Section - 26 - compact Unit

Code	Governorate Name	Description	Qty
03-02-01154	All Gov.	compact Unit 200 cu.m/hr	400

**SECTION - 27 -
COMPUTERS COMPLETE WITH PRINTERS AND ACCESSORIES**

Code	Description	QTY
03-02-01155	PANTIUM III	120
03-02-01156	MAIN SYSTEM PANTIUM III	1
03-02-01157	WORK STATION PANTIUM III	20
03-02-01158	HUBS 8 -PORT OUTLETT WITN CABLES AND CONNECTORS	3
03-02-01159	DATA SWITCH 5 × 1 PORT	4
03-02-01160	SPACIAL WHITE COMPUTER BOARD	3
03-02-01161	SVGA PROJECTOR	10
03-02-01162	PHOTO GRAPHIC CAMERA	10
03-02-01163	VIDO INPUT / OUTPUT INTERFACE	10
03-02-01164	HP LASER JET 8000 (COLOR)	65
03-02-01165	HP LASER JET 1100 (BLACK AND WHITE)	60
03-02-01166	POWER SUPPLY (UPS)	125
03-02-01167	HP SCANNER -SCANNER A4 -CONTEX , PLOTER	120
03-02-01168	PEN PLOTER	40
03-02-01169	JAZZ DRIVE	40
03-02-01170	ELECTRICAL TYPE WRITE ARABIC / ENGLISH	20
03-02-01171	FLOPPY DISKETTES 3.5 H.D	120 box
03-02-01172	FANFORD PAPER	120 box
03-02-01173	DRAWING PHOTO COPY MACHINE	5
03-02-01174	PHOTO COPY MACHINE	50
03-02-01175	THEDOLITE AND LEVEL	15

NOTE: COMPUTER IN ITEM 1,2,3MUSTTE BRAND WITH ADVANCE SOFT WARE PACKAGE

SECTION 28**G. R. P. Pipes**

Code	Description	Qty ml
03-02- 01176	Supplying glass reinforced plastic pipe 6 bar for gravity sewers (G.R.P) pipes shall comply with B.S. 5480 (2000)mm dia -with rubber rings	15000
03-02-01177	2- Ditto (800)mm dia.	15000
03-02-01178	3- Ditto (1600)mm dia.	10000
03-02-01179	4- Ditto (1500)mm dia.	20000
03-02-01180	5- Ditto (1300)mm dia.	10000
03-02-01181	6- Ditto (1200)mm dia.	20000
Total		90000

SECTION 29**EXCAVATER**

Code	Description	Qty No.
03-02- 01182	A- Backhoe loaders	120
03-02- 01183	B-Wheel excavater	90
03-02- 01184	C-Grawler excavater	45
Total		255

SECTION 30**Dumpers**

Code	Description	QtyNo.
03-02-01185	- 1 ton capacity diesel engine , with spare parts	100

SECTION 31

Battries and battry charger

Code	Description	Qty No.
03-02-01186	Battries acid must be dry :- 60 A 10-12 cell 90 A 15 cell 135 A 20 cell 180 A 25 cell	2000 2200 3200 2100
03-02- 01187	Battries charger (380)V 3.ph, must be portable type and the speed of the charger must be low and high with indication lamp for control	30
Total		9530

SECTION 32

Tyers

All Tyres should be polyester (nylon) and steel

Code	Description	Qty No.
03-02-01188	Tyers :-	
	1- 1200 x 20 PR 18 with tube and auxelaries	2200
	2- 1100 x 20 PR 18 with tube and auxelaries	2000
	3- 1000 x 20 PR 16 with tube and auxelaries	500
	4- 900 x 20 PR 16 with tube and auxelaries	1000
	5- 750 x 16 PR 12 with tube and auxelaries	2000
	6- 700 x 16 PR 12 with tube and auxelaries	100
	7- 650 x 16 PR 12 with tube and auxelaries	200
	8- 650 x 14 PR 8 with tube	2000
	9- 185 x 14 PR 8 with tube	2000
	10- 195 x 14 PR 8 with tube	1000
	11- 700 x 15 PR 10 with tube and auxelaries	200
	12- 600 x 8 PR 15 with tube and auxelaries	100
	13- 600 x 10 PR 15 with tube and auxelaries	150
	14- 1200 x 24 with tube and auxelaries	2200
	15- 17.5 x 25 with tube and auxelaries	400
	16- 900 x 20 Smooth pr 16 with tube and auxelaries	250
	17- 1300 x 24 (agriculture type) with tube and auxelaries	600
	18- 20.5 x 25 (agriculture type) with tube and auxelaries	400
	19- 185 x 15 (agriculture type) with tube and auxelaries	200
	20- 175 x 13 (agriculture type) with tube and auxelaries	1000
Total		18500

The face for tyers must be tough and slotted to itemes (1 , 2 , 3 , 4 , 12 , 13 , 14 , 19)

SECTION 33

VEHICLES

Code	Description	Qty /No.
03-02-01189	Pick up (double cabinet) (1.5-2) ton with spare parts	12
03-02-01190	Super ban cars	12
Total		24

SECTION -34-

Carbage collection vehicles

<i>Code</i>	<i>Description</i>	<i>Qty/No.</i>
03-02-01191	Carbage collection vehicles	300

SECTION -35-

Carbage Containers Hook Loader trucks & carbage container

<i>Code</i>	<i>Description</i>	<i>Qty / No.</i>
03-02-01192	Carbage Containers Hook Loader trucks	100
03-02-01193	Carbage containers	500

**SECTION - 36 -
WATER TANKER**

Code No.	Description	Qty/No.
03-02-01194	16000 Litters drinking water tanker	500
03-02-01195	8000 Litters Drinking water tanker	100
03-02-01196	fire extinguisher vechle with (6000 - 8000) litter water tanker	240*
Total		720

**SECTION - 37 -
Tractor with truck**

Code	Description	Qty/No.
03-02-01197	Tractor with truck4 ton	500

**SECTION - 38 -
Grader**

Code	Description	Qty/No.
03-02-01198	Grader	200

**SECTION -39-
BULLDOZER TRACTOR**

Code	Description	Qty/No.
03-02-01199	BULLDOZER TRACTOR	200

SECTION -40-
PAVER FINISHER

Code	Description	Qty/No.
03-02-01200	PAVER FINISHER	30

Section (41)
Spare part for (Volvo , Cater pillar, Foun, Hino, Kawsaky)
Cars & Equipment
spare part of caterpillar equipment

Code	Item.	p.No.	Des.	Qty./No.
03-02-01201	1-	5D 9553	Cutting Edge	100
	2-	IU 3301	Cutting tip	1000
	3-	2P 8889	Cyl. Liner	360
	4-	IW 6757	Ring set.	240
	5-	6V 2209	gasket Kit	200
	6-	6N 7005	Nozzle	360
	7-	2W 6091	Ring set.	240
	8-	8N 6000	cylinder nead	15
	9-	1N 4304	cylinder nead	15
	10-	1N1301	cylinder nead	15
	11-	8N 1188	cylinder nead	15
	12-	4N 6116	Fule pump	20
	13-	6N 7527	plunger bushing	120
	14-	4N 6860	cartridge	40
	15-	8N 1831	Nozzle	180
	16-	8N 5510	Turbocharge	40
	17-	8J 0448	Fuel inj. pump	40
	18-	4N 6859	Turbo charge	20
	19-	7N 2834	Kit	50
	20-	6N 9653	Oil cooler	20
	21-	2S 8959	Seal	100
	22-	8A 2252	Piston	100
	23-	4N 6258	Bearing	100
	24-	8S 7762	Ring set	100
	25-	4V 7062	Disk	100
	26-	8J 498	Pump	10
	27-	4V 5415	Kit	100
	28-	3T 3421	Stator	20
	29-	6N 9915	Valve	100
	30-	6N 9916	Valve	100
	31-	1W 3058	Water pump	20
	32-	1W 6756	Air compressor	20
	33-	6H 2577	Universal Joint	30
	34-	7N 128	Oil cooler	60
	35-	7N 165	Oil cooler	60
	36-	2P 0661	Water pump	10
	37-	9S 8914	Kit	20
	38-	5S 7232	Valv	100
	39-	5S 6452	Valv	100

Spare Part Of Volvo Cars

Code	Item.	p.No.	Des.	Qty./No.
03-02-01202	1-	275099 or 275036	Cyl. Liner Kit	300
	2-	275551	Gasket Kit	180
	3-	276122 or 275531	Gasket	100
	4-	275304	Piston ring Kit	300
	5-	467517	Oil pump	60

Code	Item.	p.No.	Des.	Qty./No.
	6-	276155 or 275570	Oil pump Kit	30
	7-	270100	Big end bearing Kit	200
	8-	270439	Main bearing Kit	200
	9-	270101	Big end bearing Kit	200
	10-	270440	Main bearing Kit	200
	11-	1699789-467915	Water pump	70
	12-	276802-275615	Water pump Kit	100
	13-	423125	Pulley	50
	14-	467466	Fule inj. pump	70
	15-	243083	Feed pump	150
	16-	240808	pump unit	100
	17-	240423	Delivery valver	100
	18-	243742	Delivery valver	150
	19-	3826073-70703	Hand pump	100
	20-	238896	Nozzle	600
	21-	467309	Turbo charge	50
	22-	465930-240340	Start motor	50
	23-	240488	Solenoid switch	100
	24-	240493-1578140	Starter solenide	100
	25-	1624089	Alternator	50
	26-	1610144	Spring pin	100
	27-	244343	Diode plate	50
	28-	1625880-244426	Carbon brush Kit	200
	29-	1698433-244340	Rotor	70
	30-	1527474-267143	Clutch	50
	31-	267236-1668372	Clutch	50
	32-	1668373-1526047	Drive plate	50
	33-	1527693-267156	Rel. bearing	50
	34-	1669488-1581209	Master cylinder	25
	35-	273660	Repair Kit	100
	36-	1673067	Clutch serne	30
	37-	966458	Nipple	30
	38-	271194-273447	Repair Kit	100
	39-	232367	Centre bearing	50
	40-	1587787	Hydraulic pump	100
	41-	1695596	Plate	100
	42-	1695592	Shaft	100
	43-	1695594	Rotor Kit	100
	44-	3090417-1695595	Rotor Kit	100
	45-	150221	Hub	100
	46-	1588406	Screw	500
	47-	362166	Nut	500
	48-	8151816-1584340	Roller bearing	50
	49-	8151820-184088	Roller bearing	50
	50-	1089552-1587792	Seal ring	50
	51-	1608293-1581604	Screw	100
	52-	8153600-1504951	Relay	1000

Spare Part Of Fouen Cars

Code	Item.	p.No.	Des.	Qty./No.
03-02-01203	1-	0601-248(090)	Radiator	10
	2-	1614-532	Way Valve	40
	3-	3298-785	Hydrwlic engine	10
	4-	5122-080	Roller brush	200
	5-	5122-074	Disk brush	200
	6-	001431-4106	Prusser regulator	20
	7-	385410-0231	Universal joint gross	20
	8-	3402500215	Relese regulator	60
	9-	0012503803	clutch disc	60
	10-	3520303702	crank shaft	4
	11-	3524700092	Filtter element	200
	12-	0031510501	starting motor	10
	13-	0061542402	Alternator	10
	14-	1701-054	starter	10
	15-	1702-117(102)	Generator	10
	16-	0039975492	V. belt	50
	17-	0048-244	V. belt	50
	18-	010074-6201	Ingection pump	10
	19-	1710-074(246)	Light	20
	20-	0000178621	Nozzle holder	600
	21-	0000173912	Nozzle	600
	22-	7845-225	Plunger nozzle	40
	23-	7845-480(171)	Exhaust pipe	20
	24-	1716-019	Switch	40
	25-	1616-126	Nose line	20
	26-	0000900050	Fuel feed pump	40
	27-	0000900250	Fuel pump	20
	28-		Bush pistom ring for engine	20 set
	29-		Bush pistom ring for rear engine	20 set

Spare Part Of Hino Cars KB 422

Code	Item.	p.No.	Des.	Qty./No.
03-02-01204	1-	11110-1292	Cylinder head	300
	2-	13216-1230	Piston	1200
	3-	11467-1180	Liner	1200
	4-	04010-0160	Gasket	2000
	5-	16100-1161	Pump	50
	6-	27020-1380	Alternator	100
	7-	28100-1400	Startor	100
	8-	13011-1630	Ring Set	1200
	9-	13201-1280	Bearing	1200
	10-	13201-1300	Bearing	1200
	11-	13011-1330-1340	Ring	1200
	12-	11701-1161	Bearing	1200
	13-	11704-1161	Bearing	1200
	14-	11703-1161	Bearing	1200
	15-	1111202000	Vacum pump	400
	16-	32210-1113	Boo star	1000
	17-	32200-1011	Repair Kit	1000
	18-	3140-1060	Cylinder	500
	19-	27700-1100	Regulator	500
	20-	29100-1032	compressor	100
	21-	22000-1011	Ing. Pump	50
	22-	60617-2300	Nozzle	2400
	23-	22104-1050	Element	2000
	24-	9828-01168	Oil seal	250
	25-	22509-1060	pump	150
	26-	11011-1171	Washer	200
	27-	29191-1080	Piston Ring	150
	28-	29106-1070	Piston Ring	150
	29-	29101-1020	Valv ass	150
	30-	29110-1040	cylinder	150
	31-	29185-1040	Bearing	150
	32-	29173-1010	Bearing	150
	33-	9828-25110	Oil Seal	150
	34-	27330-1310	Rotor	100
	35-	27410-1350	Stator as.	100
	36-	990-063042	Bearing	150
	37-	990-062032	Bearing	150
	38-	28150-1320	Switch	150
	39-	28160-1210	Armature	150
	40-	990-062020	Bearing	100
	41-	9828-20210	Oil seal	100
	42-	9881-20115	Bearing	100

Spare Part Of Kawsaky 70 , 80

Code	Item.	p.No.	Des.	Qty./No.
03-02-01205	1-	YZ 1136102190	Water pump	10

2-	YZ 1811000451	stator	10
3-	YZ 1812001780	Alter nator	10
4-	YZ 9822500720	Cutt out	30
5-	YZ 9812009513	Feed pump	60
6-	YZ 41201210	Kit	50
7-	L010	Kit	40
8-	YZ 1878181649	Oil cooler	20
9-	YZ 1217000841	Fan	10
10-	YZ 210609201	Kit	40
11-	822522	Pump	5
12-	YK1161071100	Pump	5
13-	YK 1189022105	Valve	100
14-	YZ 1125510030	Valve	100
15-	YZ 1125520030	Air compressor	55
16-	YZ 1191000621	Lever	10
17-	05C0151L000	Control	10
18-	05D0191L001	Cylinder	10
19-	53C0441L100	Cylinder	10
20-	53C0451L100	Valve	10
21-	YTU38	Transmisson	2
22-	RIF277T	Torque	5
23-	YKY88271X YKY7071X YRS 4078100000A	Radiator	5

SECTION(42)**Traffic Light Equipment**

Code No.	Description	Qty /No.
03-02-01206	controlled of intersections by traffic light system	300 intersections
	each intersection include the fallowing item :	
	Item	Qty.
	1. traffic light controller	1
	2. signal head 3-aspect 300 mm	10
	3. pole in 3.7m length	9
	4. pole with cantilever with arm of 5.5m	1
	5. cable size 3x6 mm ²	100m
	6. cable size 5x1.5 mm ²	500m
	7. halogen lamp 10V/50W (Phillips)	200
	8. lithium battery	4
	9. lenses 300mm	6
	10. transformers 220V-10V	4
	11. spare parts set for above controller	1 set

SECTION 43

Lifting crane

Code	Description	Qty/No.
03-02-01207	Lifting crane two cabinet diesel enging, 1100 x 20 tyers size , 2 No. of battries , 135 am 4No. jack with spare parts . capacity 20 ton capacity 30 ton capacity 50 ton	60 60 20
Total		140

SECTION 44

Spare Part For Mosul Water Treatment Plants

Spare part for mosul (left side) w.t.p			
Code		Item Description	Qty/No.
03-02-01208	1.1	ASEA contactor, EH 9-10, Iec 158-1, Vdelta E 0660, AC3 220 , 380 V, Ith=25A, SK 812 003 for electrical generator 1250 K.V.A	2
03-02-01209	1.2	ASEA contactor, EH 6-22E, Iec 337-1, Vdelta E 0660, AC11 110-220 , 380 V, Ith=25A, SK 811 023 for electrical generator 1250 K.V.A	2
03-02-01210	1.3	ASEA flag relay, 5615 453-D, N=11000, D=0, 132 mm, R=460 OHM., RxsF 1, RK 271-003-AD for electrical generator 1250 K.V.A	4
03-02-01211	1.4	ASEA relay, RASA 4, RK861-001-BA, u1=u2, 110-120, V/220-240 V, 50-60 HZ., Df2 HZ. for electrical generator 1250 K.V.A	4
03-02-01212	1.5	Spare parts for vertical cetrifugal pump, type HA 500/64-15, HALBERG registration No. PGG 14192/99-5, No. of relevant sectional drawing 127 5489-26-0104, Q=2200 m ³ /hr, H=40 m as per attached sheet. Supplier, HALBERG, Maschinen bau GmbH, Telex: 484833, SWEEDEN	
03-02-01213	1.5.1	Bearing centre sleeve, part No.(54.00).Dimension (TM80).Material (C45N)	8
03-02-01214	1.5.2	Bearing bush. part (54.50). Dimension (109/127x100). Material (Silicon-Carbid)	100
03-02-01215	1.5.3	Deflector. Part NO. (50.10). Dimension (00/146x16). Material (ULTRAMID)	4
03-02-01216	1.5.4	Impiller. Part NO. (23.00). Dimension (LA667x77). Material (1.4408)	8
03-02-01217	1.5.5	Shaft screw. Part NO.(90.42). Dimension (M10x20). Material (A4-70)	200
03-02-01218	1.5.6	Shaft sleeve. Part NO. (52.30). Dimension (91/109x100). Material (Silicon -Carbid)	150
03-02-01219	1.5.7	Shaft sleeve. Part NO. (52.40). Dimension (A86/95x170). Material (1.4021.05)	8

SECTION 45

UPVC Pipes & fittings for maintenance of the networks

Code	Description	Qty
03-02-01220	Supplying U.P.V.C pipes (315) mm dia. of tyton-joint with rubber rings. 10 bar	250000 mr
03-02-01221	Ditto but (280)mm. dia. 10 bar	500000 mr
03-02-01222	Ditto but (225)mm. dia. 10 bar	1000000 mr
03-02-01223	Ditto but (160)mm. dia. 10 bar	2000000 mr
03-02-01224	Ditto but (110)mm. dia. 10 bar	3000000 mr
03-02-01225	Ditto but (90)mm. dia. 10 bar	20000 mr
03-02-01226	Supplying U.P.V.C pipes (400) mm dia. of tyton-joint with rubber rings. 6 bar	200000 mr
03-02-01227	Holes drill machine for diameter $\frac{1}{2}$ " , $\frac{3}{4}$ " , 1" to drill the upvc pipes complete with accessories	200 No.
03-02-01228	1- All socket tees complets with eubber rings. 10 bar for dia (315x315)mm	2000 No.
03-02-01229	2- Ditto for dia (315x280)mm	2000 No.
03-02-01230	3- Ditto for dia (315x225)mm	2000 No.
03-02-01231	4- Ditto for dia (315x160)mm	2000 No.
03-02-01232	5- Ditto for dia (315x110)mm	2000 No.
03-02-01233	6- Ditto for dia (280x280)mm	2000 No.
03-02-01234	7- Ditto for dia (280x225)mm	2000 No.
03-02-01235	8- Ditto for dia (280x160)mm	2000 No.
03-02-01236	9- Ditto for dia (280x110)mm	2000 No.
03-02-01237	10- Ditto for dia (225x225)mm	1000 No.
03-02-01238	11- Ditto for dia (225x160)mm	1000 No.
03-02-01239	12- Ditto for dia (225x110)mm	1000 No.
03-02-01240	13- Ditto for dia (225x90)mm	100 No.
03-02-01241	14- Ditto for dia (160x160)mm	1000 No.
03-02-01242	15- Ditto for dia (160x110)mm	1000 No.
03-02-01243	16- Ditto for dia (160x90)mm	100 No.
03-02-01244	17- Ditto for dia (110x110)mm	1000 No.
03-02-01245	18- Ditto for dia (110x90)mm	100 No.
03-02-01246	19- Ditto for dia (90x90)mm	50 No.
03-02-01247	Two end socket bend complete with rubber rings (10)bar as below :- 1-90 ⁰ bend for 315 mm dia	150 No.
03-02-01248	2- 45 ⁰ bend for 315 mm dia	150 No.
03-02-01249	3- 22 ¹ / ₂ bend for 315 mm dia	100 No.
03-02-01250	4- 90 ⁰ bend for 280mm dia	200 No.
03-02-01251	5- 45 ⁰ bend for 280 mm dia	150 No.
03-02-01252	6- 22 ¹ / ₂ bend for 280 mm dia	100 No.
03-02-01253	7-90 ⁰ bend for 225 mm dia	1000 No.
03-02-01254	8- 45 ⁰ bend for 225mm dia	1000 No.
03-02-01255	9- 22 ¹ / ₂ bend for 225 mm dia	750 No.
03-02-01256	10-90 ⁰ bend for 160 mm dia	1000 No.
03-02-01257	11- 45 ⁰ bend for 160mm dia	1000 No.
03-02-01258	12-90 ⁰ bend for 110 mm dia	2000 No.
03-02-01259	13- 45 ⁰ bend for 110mm dia	1000 No.

Code	Description	Qty
03-02-01260	Supplying (1000) mm dia UPVC socket and spigat pipe with rubber joint,according to the requirements of DIN 8061, 8062,and 19532 for working pressare of 6 bar	56000 ml
03-02-01261	Ditto (900)mm dia	120000 ml
03-02-01262	Ditto (800)mm dia	220000 ml
03-02-01263	Ditto (700)mm dia	300000 ml
03-02-01264	Ditto (600)mm dia	400000 ml
03-02-01265	Ditto (500)mm dia	310000 ml
03-02-01266	Ditto (400)mm dia	220000 ml
03-02-01267	Ditto (300)mm dia	70000 ml
03-02-01268	Ditto (250)mm dia	81000 ml
03-02-01269	Ditto (200)mm dia	150000 ml
03-02-01270	Ditto (150)mm dia	30000 ml
03-02-01271	Ditto (100)mm dia	150000 ml
03-02-01272	Ditto (80)mm dia	1000 ml
03-02-01273	Ditto (50) mm dia	2000 ml
03-02-01274	Supplying (200 x 100) mm dia UPVC tee junction 76 bar	8000 No.
03-02-01275	Ditto (250 x 100)mm dia	5000 No
03-02-01276	Ditto (300 x 100)mm dia	1000 No
03-02-01277	Ditto (100 x 500)mm dia	500 No
03-02-01278	Ditto (100 x 600)mm dia	500 No
03-02-01279	Ditto (200 x 250)mm dia	1000 No.
03-02-01280	Ditto (500 x 400)mm dia	500 No
03-02-01281	Ditto (500 x 600)mm dia	500 No
03-02-01282	Stoppers (100) mm dia	50000 No
03-02-01283	Ditto (150)mm dia	25000 No
03-02-01284	Heavy duty covers manholes 550 mm dia	30000 No
03-02-01285	Ditto but (600 x 900) mm dia	20000 No
03-02-01286	Glvanized steel pipe (6m)and diameter (160)mm ventilating columns with the fittings up	5000 No
03-02-01287	Ditto but (200)mm diameter	3000 No
03-02-01288	UPVC tee janchon pipes (400 x 100)mm dia	1000 No
03-02-01289	Ditto (200 x 150)mm dia	4000 No
03-02-01290	Ditto (250 x 150)mm dia	10000 No
03-02-01291	Ditto (300 x 150)mm dia	3000 No
03-02-01292	Ditto (400 x 150)mm dia	3000 No
03-02-01293	Ditto (500 x 150)mm dia	3000 No.
03-02-01294	Ditto (600 x 150)mm dia	300 No
03-02-01295	Ditto (150 x 150)mm dia	4000 No

SECTION 46

FIRE EXTINGUISHER FOAM

Code	Description	Qty (litter)
03-02-01296	1- Using For Fire Fighting Type (A,B,C).fires	1000000

SECTION 47

EQUIPMENT FOR COMPRESSED AIR

Code	Description	Qty
03-02-01297	<p>Filling compressed air apparatus:-</p> <ul style="list-style-type: none"> 1- Designed to fill (charge) breathing cylinders apparatus. 2- charging pressure should be no less than 200 bar. 3- the apparatus should be working by electric motor no less than 2700 rpm . (three phases). 4- equipped with moisture and dust filters . 5- equipped with pressure meters to check outer cylinder . 	40
03-02-01298	<p>Automatic multipurpose filling station to fill all kind of free extinguishers : The unit must be complete with the following sections :-</p> <ul style="list-style-type: none"> 1. Automatics dry powder filling unit sacs the powder from any container and fill directory in to the extinguishers without making dust . <ul style="list-style-type: none"> - Working 1.5 Kw , 22CV 50HZ , filling capacity 30 extinguishers 12 Kg per hour . - Able to fill all kind of fire extinguisher with different capacities from 1Kg up to 150 Kg with different adapters. 2. CO₂ high pressure pump to transfer CO₂ from the main cylinder to the fire extinguishers works with external cartridge . <ul style="list-style-type: none"> - Delivery 8Kg per mm. maximum pressure 100bar , working 1.5Kw 220V 50Hz . - Provided with pressure switch that automatically stops the pump when the right pressure is reached high-pressure safety valve . 3. Air compressor 3Clt. Capacity , max working pressure 16 bar , delivers of air 150 It. Per mm. . <ul style="list-style-type: none"> - Working 1,5 Kw , 220V 50Hz. 4. Manual clamp to hold the fire extinguishers to be able to mount and dismount valves to make maintenance . <ul style="list-style-type: none"> - Pressure of piston operated by 600Kg compressed air . - Different shelves to adjust the base to the required high of the extinguishers needs to be required . - Safety door with lock and safety device , to release pressure when the door will be opened . 5. Main controller panel to controller all above machinery with safety overload and relay . 6.CO₂ cartridge filling head to refit many type of 002 cartridges in the market . <ul style="list-style-type: none"> - Feed directory from the above CO₂ pump . - Provided with adapters to be change according to the cartridge size . 7. Electrical balances with the following characteristics . <ul style="list-style-type: none"> a- for fire extinguishers of 1 SC Kg load and 10 gr. Division b- for internal cartridge 30 Kg load and 10 gr. Division . <p>Possibility to set the trace weights and read directly the net weight on the display .</p> 8. Hydrostatic test pump for hydraulic test of different kinds of cylinders from 10bar up to 250bar . <ul style="list-style-type: none"> - Equipped with :- manometer to control the test pressure ,pressure reducer to calibrate the test pressure and interception valves to control the flow of the water . - The pump is working by hydro-pneumatic system with the working pressure of 10bar in the air and 300bar in the water . 	40

Code	Description	Qty
	- Many adapters able to test many kinds of different fire extinguishers i.e. powder , CO ₂ , foam , halon1 Etc. .	
	9. The unit is supplied with complete set of hoses and adapters to connect many kind of fire extinguishers from the unit to the extinguisher itself.	

SECTION 48

LAND CRUSIER

Code	Description	Qty/No.
03-02 -01299	Land crusier with 4 doors & spare parts	500
03-02 -01300	Land crusier with 2 doors & spare parts	150
Total		650

SECTION 49

Fuel tanker

Code	Description	Qty/No.
03-02 -01301	Fuel tanker 16000 L	120
Total		120

SECTION 50

Command fire fighting vehicle

Code	Description	Qty /No.
03-02-01302	Command fire fighting vehicle	100

Section (51)

Road Marking Machines

Code No.	Item	Description	Qty.
03-02-01303	1	Road marking machines (large size) complete and ready for operation .	15
03-02-01304	2	Road marking machines (middle size) complete and ready for operation .	15

Section (52)

Traffic Safety Materials

Code No.	Item	Description	Qty.
03-02-01305	1.	road studs (reflective pavement marker) size 10 x 10 x1.75 cm , both faces are reflective in the same color : A. white color . B. yellow color .	30000 120000
03-02-01306	2.	road studs (reflective pavement marker) size 10 x 10 x1.75 cm , one face in reflective for one directional viewing : A. white color . B. yellow color .	15000 30000
03-02-01307	3.	road studs (reflective pavement marker) size 22 x 10 x4.5 cm , both faces are reflective in the same color : A. white color . B. yellow color .	15000 75000
03-02-01308	4.	road studs (reflective pavement marker) size 22 x 10 x4.5 cm ,one face reflective : A. white color . B. yellow color .	7500 30000
03-02-01309	5.	conventional epoxy adhesive (one or tow - component) required to sticks and firmly to pavement of the above mentioned	700 Kg.
03-02-01310	6.	Cones made of reflective material in two color (red and white) used for safety in road operation : A. cones with height of 70 cm . B. cones with height of 70 cm .	1500 1500

Section (53)
spare parts for existing traffic light controllers

Spare parts for traffic light controller type MPC/2408-16-24/futurit (Austria)

Code No.	item	Description	Qty.
03-02-01311	1.	Processor card CA	60
	2.	Input / output card ICO1	60
	3.	Input / output card ICO2	45
	4.	Data memory C100 , C210	45
	5.	Triger pulse unit TPU , TPC	150
	6.	Oscillator card CMOC	150
	7.	Fault memory CMMC	90
	8.	Logic card CMLC	60
	9.	contractor KV	45
	10.	contractor KR	45
	11.	Lamp switch LSU	300
	12.	control card program CCL	120
	13.	Fuses F 6.3 A	1200
	14.	Hand held terminal (HHTTY) for controller type FMTC	2

Spare Parts For Traffic Light Controller Type AD 520 / 16 Philips

Code No.	Item	Description	Qty.
03-02-01312	1.	System control and interface unite SCIU (code no. 9586-127-08100)	10
	2.	Processor board PB80 (9586-141-88010)	20
	3.	Conflict monitor unit CMU (9586-127-00310)	16
	4.	Flasher unit 2F(9586-952-02100)	12
	5.	Flash transfer unit FTUMK2 (9586-126-01750)	8
	6.	Power supply unit 1823- 5/5/24 PSU - 5/5/24(9586-912-02010)	20
	7.	Transformer unit 1829-9 TR9 (9586-912-01010)	4
	8.	Transformer unit 1830-9 TRU(9586-912-01210)	6

Spare Parts For Traffic Light Controller Type AD 570 /16 Philips (Holland)

Code No.	Item	Description	Qty.
03-02-01313	1.	System control and diagnostics SCD (code no. 9586-129-01100)	12
	2.	Processor road PB80-2 (9586-141-88200)	20
	3.	Aspect monitoring and diagnostics 8 AMDS (9586-129-00100)	20
	4.	Presence detector 86 AA205 (9584-813-09710)	6
	5.	Power supply unit 5 and 5V PSU 5/5/0.3 (9586-129-04100)	20
	6.	Power supply unit 8V PE 1806/20 (9586-912-02211)	16
	7.	Power supply unit 5V PE 1112/10(9415-011-12011)	20
	8.	Power supply unit 24V PE 1114/01 (9415-011-14011)	20
	9.	Input/Output timer /RAM board 10TR (9586-127-24100)	12
	10.	Detector power supply DPS24V	8
	11.	Filter Z11	8
	12.	Band 1 T Roll ¾	80
	13.	Band 1 T Buckles ¾	2500
	14.	Band 1 T Tool	10
	15.	Hand held teltype (HHTTY)	5

Section - 54

**Spareparts For Road Marking
Machine Type (Zindel Universal - 21)**

Code No.	Item	Description	Qty.
03-02-01314	1.	Bulb set cp1. With bilux	50
	2.	Bulb set f. working lamps	50
	3.	Bulb set f. beacon lamps	50
	4.	Glass f. beacon lamps	50
	5.	Fuses (8, 16, 25A)	2000
	6.	Electric control switch	10
	7.	Head lamp glass , left	50
	8.	Head lamp glass , right	50
	9.	Blinker glass left	50
	10.	Blinker glass right	50
	11.	Blinker CPI. left	30
	12.	Blinker CPI. Right	30
	13.	Rear lamp CPI. left	30
	14.	Rear lamp CPI. Right	30
	15.	Wiper balde	100
	16.	Wiper arm	20
	17.	Rear view mirror	100
	18.	Tank cover	300
	19.	Inter come system	50
	20.	carrier wheel CPI ý.	200
	21.	Type f. suoot	50
	22.	Wheel (Aiming device)	50
	23.	Type f. support wheel	200
	24.	(Aiming device)	30
	25.	Type for mercedes	30
	26.	Wiper motor .	50
	27.	Support wheel CPI. (Aiming device) .	30
	28.	Container f. brake fluid	80
	29.	Main brake cylinder .	80
	30.	Differential gear f. rear axle .	80
	31.	Exterior front wheel	80
	32.	Bearing	80
	33.	Speedo meter cable .	20
	34.	Ignition switch	40
	35.	Air filter insert	500
	36.	Oil filter insert .	500
	37.	fuel pump .	50
	38.	Water pump .	50
	39.	Carburetor	50
	40.	Voltage regulator .	30
	41.	Generator .	50
	42.	Radiator Assy .	30
	43.	Starter .	50
	44.	distributor CPI.	100

Code No.	Item	Description	Qty.
	45.	Conact set .	400
	46.	Ignition plug	2000
	47.	Gasket F. cylinder head	30
	48.	Engine gasket set	30
	49.	Muffler CPI. (hydro- trawsm)	50
	50.	Oil pan gasket	100
	51.	Liquid clutch cpI (hydro- trawsn)	30
	52.	Oil filter F. autom	500
	53.	Diaphragm F. hot air .	300
	54.	Electrical main jet	100
	55.	Air regulator	50
	56.	Ignition plug V W	2000
	57.	Contact set V W .	40
	58.	Distributor V W .	50
	59.	Distributor cap V W .	150
	60.	Carburettor V W .	50
	61.	Starter V W .	50
	62.	Fuel pump V W .	50
	63.	Generator V W .	30
	64.	Ignition switch V W .	100
	65.	Ignition coil V W .	50
	66.	V-belt V W .	100
	67.	Pulley V W .	20
	68.	Oil filter cap	100
	69.	Fuel tank cap V W .	100
	70.	Air filter compressor	200
	71.	Paint tank / stirrer .	300
	72.	Paint tank / gasket	300
	73.	tank exit gasket	150
	74.	Gasket for manhole	150
	75.	Gasket set for stirrer	50
	76.	Free wheel	30
	77.	Pneumatic cylinder for stirrer	60
	78.	Manometer	60
	79.	Safety valve	100
	80.	Paint cock	200
	81.	M of tecalan hose , pu-4	200
	82.	Sleeve nut F. teealan hose	200
	83.	3-path cock	30
	84.	Main paint hose	40
	85.	Pressure regulator	50
	86.	Hand switch for spray gun	100
	87.	Repair sets for pressure regulator	100
	88.	Signal lamp 12 v/125 w .	200
	89.	Fuses	2000
	90.	Manometer	200
	91.	Quick coupling	150
	92.	Magntic valve	100

Code No.	Item	Description	Qty.
	93.	Repair sets for Magnitic valve .	100
	94.	Magnetic coil	1560
	95.	Meter cv-tube 12mm dia .	50
	96.	Back pressure valve	50
	97.	Meter tecalan hose 4mm dia	100
	98.	sets of cutting rings , 12mm solvent tank .	200
	99.	Gasket for solvent tank .	150
	100.	Saftey valve ¼ .	50
	101.	Solvent .	50

Hand Spray Gun :

Code No.	Item	Description	Qty.
03-02-01315	102		
	103	Hand spray gun cpI with paint peaker .	200
	104	Air head	150
	105	Paint nozzle	150
	106	Needle packing	300
	107	Valve spring	300
	108	Packing	300
	109	Valve spring	150
	110	Needle spring	150
	111	Paint needle	150
	112	Counter screw	50
	113	Valve cone	50
	114	Needle packing	300

Hoses and connections :

Code No.	Item	Description	Qty.
03-02-01316	114	Set of paint hoses , cpI .	200
	115	Set of atomizing air hoses , cpI .	200
	116	Set of control air paint hoses , cpI .	200
	117	Distributor	100

Working Head :

Code No.	Item	Description	Qty.
03-02-01317	118	Spray gun zsepl. With control cylinder .	100
	119	Ring nut	150
	120	Paint nozzle	200
	121	Orifice	200
	122	Air nozzle (G77) .	300
	123	Paint needle 7 dia .	300
	124	Teflon valve	300
	125	O-Ring	600
	126	Valve sleeve	600
	127	Valve spring	300
	128	Needle spring	300
	129	Air connection	150
	129	Needle screw plug	200
	130	Plug	200
	131	Adjuster nut	200
	132	Nut	200
	133	O-Ring	600
	134	O-Ring	600
	135	Needle protection	600
	136	O-Ring	600
	137	Needle packing	600
	138	Set of standard part	10

SECTION 55

Rescue vehicl (van)

Code	Description	Qty
03-02-01318	Rescue vehicl (van)	200

Section (56)

Compacting Roller (Steel- Steel Roller)

Code No.	Description	Qty.
03-02-01319	Compacting Roiler (Steel- Steel Roller)	90

Section (57)

Tyre-Steel Roller Compactor

Code No.	Description	Qty.
03-02-01320	Tyre-Steel Roller Compactor	90

Section (58)

Pneumatic-Tyred Roller

Code No.	Description	Qty.
03-02-01321	Pneumatic -Tyred Roller	90

Section (59)

Foot Sheep Vibratory Roller

Code No.	Description	Qty.
03-02-01322	Foot Sheep Vibratory Roller	90

SECTION 60

Machine for removing asphalt

Code	Description	Qty
03-02-01323	Machine for removing asphalt	15

SECTION 61
Ductile Iron pipes & fittings

Code	Description	Qty
03-02-01324	Supplying (1200) mm dia. Ductile iron socket and spigot pipe class (K9) of tyton joint with rubber rings , according to the internat:onal standard (ISO - 2531) .	50000ml
03-02-01325	Ditto (1000) mm dia.	50000ml
03-02-01326	Ditto (900) mm dia.	50000ml
03-02-01327	Ditto (800) mm dia.	85000ml
03-02-01328	- Ductile iron double flanged bend with flanged socket and spigot a- 1200 mm dia - bend 90 ⁰ b- 1000 mm dia - bend 90 ⁰ c- 900 mm dia - bend 90 ⁰ d- 800 mm dia body - bend 90 ⁰	500 No. 500 No. 500 No. 850 No.
03-02-01329	- Ductile iron express double socket bends complete with rubber rings and stainless steel bolts /nuts with washers :- A- 1200 mm dia a.1- bend 45 ⁰ a.2- bend 22 ¹ / ₂ ⁰ B- 1000 mm dia b.1- bend 45 ⁰ b.2- bend 22 ¹ / ₂ ⁰ C- 900 mm dia c.1- bend 45 ⁰ c.2- bend 22 ¹ / ₂ ⁰	500 No. 500 No. 500 No. 500 No. 500 No.
03-02-01330	Ductile Iron all flanged tee complete as per specified A- 1200 mm dia . body a.1-1200 mm dia . branch a.2-1000 mm dia . branch a.3-900 mm dia . branch a.4-800 mm dia . branch B- 1000 mm dia . body b.1-1000 mm dia . branch b.2-900 mm dia . branch b.3-800 mm dia . branch C- 900 mm dia . body c.1-900 mm dia . branch c.2-800 mm dia . branch D- 800 mm dia . body d.1- 800 mm dia . branch d.2- 700 mm dia . branch d.3- 600 mm dia . branch d.4- 500 mm dia . branch	100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No. 100 No.

03-02-01331	- Ductile iron double socket (express) tapers with rubber rings and stainless steel bolts /nuts with washers :- a- (1200 x 1000)mm dia b- (1000 x 900)mm dia c- (1000 x 800)mm dia d- (900 x 800)mm dia	100 No. 100 No. 100 No. 100 No.
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Code	Description	Qty
	e- (800 x 700)mm dia	50 No.
	f- (800 x 600)mm dia	50 No.
03-02-01332	Supplying (600) mm dia. Ductile iron socket and spigot pipe class (K9) of tyton joint with rubber rings , according to the international standard (ISO - 2531) .	150000 m.l
03-02-01333	Ditto (500) mm dia.	270000
03-02-01334	Ditto (450) mm dia.	200000
03-02-01335	Ditto (400) mm dia.	100000
03-02-01336	Ditto (350) mm dia.	200000
03-02-01337	Ditto (300) mm dia.	300000
03-02-01338	Ditto (250) mm dia.	170000
03-02-01339	Ductile Iron double flanged beds with flanged socket express and spigot	
	A- 600 mm dia - bend 90 ⁰	1500 No.
	B- 500 mm dia - bend 90 ⁰	1500 No
	C- 450 mm dia - bend 90 ⁰	1500 No
	D- 400 mm dia - bend 90 ⁰	1500 No
	E- 350 mm dia - bend 90 ⁰	1500 No
03-02-01340	- Ductile iron express double socket bends with rubber rings and stain less steel bolts /nuts with washers :-	
	A- 600 mm dia a.1- bend 45 ⁰ a.2- bend 22 ¹ / ₂ ⁰	1500 No 500 No
	B- 500 mm dia b.1- bend 45 ⁰ b.2- bend 22 ¹ / ₂ ⁰	2700 No 700 No
	C- 450 mm dia c.1- bend 45 ⁰ c.2- bend 22 ¹ / ₂ ⁰	1000 No 500 No
	D- 400 mm dia d.1- bend 45 ⁰ d.2- bend 22 ¹ / ₂ ⁰	1000 No 500 No
	E- 350 mm dia e.1- bend 45 ⁰ e.2- bend 22 ¹ / ₂ ⁰	1000 No 500 No
	F- 300 mm dia f.1- bend 90 ⁰ f.2- bend 45 ⁰ f.3- bend 22 ¹ / ₂ ⁰	1000 No 1000 No 500 No
	G- 250 mm dia g.1- bend 90 ⁰ g.2- bend 45 ⁰ g.3- bend 22 ¹ / ₂ ⁰	1700 No 1700 No 1700 No
03-02-01341	- Ductile iron double socket (express) tapers complete with rubber rings and stainless steel bolts /nuts with washers :-	
	a- (600 x 500)mm dia	500 No.
	b- (600 x 450)mm dia	500 No.
	c- (600 x 400)mm dia	500 No.
	d- (500 x 450)mm dia	700 No.

Code	Description	Qty
	e- (500 x 400)mm dia f- (500 x 350)mm dia g- (450 x 400)mm dia h- (450 x 350)mm dia I- (450 x 300)mm dia j- (400 x 350)mm dia k- (400 x 300)mm dia l- (400 x 250)mm dia m- (350 x 300)mm dia n- (350 x 250)mm dia o- (350 x 200)mm dia p- (250 x 200)mm dia w- (250 x 150)mm dia y- (200 x 150)mm dia	700 No. 700 No. 500 No. 500 No. 500 No. 500 No. 500 No. 500 No. 500 No. 500 No. 700 No. 700 No. 700 No.
03-02-01342	Ductile Iron all flanged tee complete with flanged socket and spigot A- 600 mm dia . body a.1-600 mm dia . branch a.2-500 mm dia . branch a.3-450 mm dia . branch a.4-400 mm dia . branch a.5-350 mm dia . branch a.6-300 mm dia . branch a.7-250 mm dia . branch B- 500 mm dia . body b.1-500 mm dia . branch b.2-450 mm dia . branch b.3-400 mm dia . branch b.4- 350 mm dia . branch b.5- 300 mm dia . branch b.6- 250 mm dia . branch C- 450 mm dia . body c.1-450 mm dia . branch c.2-400 mm dia . branch c.3- 350 mm dia . branch c.4- 300 mm dia . branch c.5- 250 mm dia . branch D- 400 mm dia . body d.1- 400 mm dia . branch d.2- 350 mm dia . branch d.3- 300 mm dia . branch d.4- 250 mm dia . branch	500 No. 500 No. 500 No. 500 No. 500 No. 500 No. 500 No. 1000 No. 1000 No. 1000 No. 1000 No. 1000 No. 1000 No. 500 No. 500 No. 500 No. 500 No. 500 No. 500 No. 500 No.
	E- 350 mm dia . body e.1- 350 mm dia . branch e.2- 300 mm dia . branch e.3- 250 mm dia . branch F- 300 mm dia . body f.1- 300 mm dia . branch f.2- 250 mm dia . branch G- 250 mm dia . body g.1- 250 mm dia . branch	500 No. 500 No. 500 No. 500 No. 500 No. 500 No.
03-02-01343	Ductile Iron flanged branch on double socket express tee complete with rubber rings and stainless steel bolts / nuts with wassher : A- 600 mm dia . body a.1-100 mm dia . branch	500 No.

Code	Description	Qty
	B- 500 mm dia . body b.1-100 mm dia . branch b.2-150 mm dia . branch	1000 No. 1000 No.
	C- 450 mm dia . body c.1-100 mm dia . branch c.2-150 mm dia . branch	1000 No. 1000 No.
	D- 400 mm dia . body d.1- 80 mm dia . branch d.2- 100 mm dia . branch d.3- 150 mm dia . branch	500 No. 1000 No. 1000 No.
	E- 350 mm dia . body e.1- 80 mm dia . branch e.2- 100 mm dia . branch e.3- 150 mm dia . branch	200 No. 1000 No. 1000 No.
	F- 300 mm dia . body f.1- 80 mm dia . branch f.2- 100 mm dia . branch f.3- 150 mm dia . branch	200 No. 2000 No. 2000 No.
	G- 250 mm dia . body g.1- 80 mm dia . branch g.2- 100 mm dia . branch g.3- 150 mm dia . branch	200 No. 1700 No. 1700 No.
03-02-01344	Supplying (1200) mm dia. Ductile iron socket and spigot pipe class (K9) of tyton joint with rubber rings , according to the international standard (ISO - 2531) . Ditto (150) mm dia. Ditto (100) mm dia. Ductile Iron all flanged tee complete with flanged socket and spigotas below :	500000 ml 200000 700000
	A- 200 mm dia . body 200 mm dia . branch 150 mm dia . branch 100 mm dia . branch	1000 No. 1000 No. 1000 No.
	B- 150 mm dia . body 150 mm dia . branch 100 mm dia . branch	1000 No. 1000 No.

	C- 100 mm dia . body 100 mm dia . branch	1000 No.
03-02-01345	Ductile Iron flanged branch on double socket express tee complete with rubber rings and stainless steel bolts / nuts with wassher : A- 200 mm dia . body 80 mm dia . branch 150 mm dia . branch 100 mm dia . branch 200 mm dia . branch	200 No. 1000 No. 1000 No. 1000 No.
	B- 150 mm dia . body 80 mm dia . branch 100 mm dia . branch 150 mm dia . branch	100 No. 500 No. 500 No.
	C- 100 mm dia . body 80 mm dia . branch 100 mm dia . branch	100 No. 500 No.
03-02-01346	- Ductile iron express double socket bends with rubber rings and stainless steel bolts /nuts and washers :-	

Code	Description	Qty
	A- 600 mm dia bend 90 ⁰ bend 45 ⁰ bend 22 ^{1/2} ⁰	1500 No 1500 No 500 No
	B- 500 mm dia bend 90 ⁰ bend 45 ⁰ bend 22 ^{1/2} ⁰	1500 No 1500 No 500 No
	C- 450 mm dia bend 90 ⁰ bend 45 ⁰ bend 22 ^{1/2} ⁰	2000 No 1500 No 500 No
03-02-01347	- Ductile iron double socket (express) tapers complete with rubber rings and stainless steel bolts with nuts and washers :- a- (200 x 150)mm dia b- (200 x 100)mm dia c- (150 x 100)mm dia d- (100 x 80)mm dia	300 No. 300 No. 300 No. 300 No.

SECTION 62
Labratory mobile

Code	Description	Qty
03-02-01348	Labratory mobile	20

SECTION - 63 -
STARTERS

Starters Quantity as follow (Rating) in Amper with type

Code	Starters Type	Rating (A)	Qty.
03-02-01349	S-D	500	120
03-02-01350	S-D	400	80
03-02-01351	S-D	350	100
03-02-01352	S-D	320	110
03-02-01353	S-D	300	90
03-02-01354	S-D	250	150
03-02-01355	S-D	220	90
03-02-01356	S-D	200	104
03-02-01357	S-D	180	180
03-02-01358	S-D	160	90
03-02-01359	S-D	140	120
03-02-01360	S-D	120	127
03-02-01361	S-D	110	115
03-02-01362	S-D	100	120
03-02-01363	S-D	90	150
03-02-01364	S-D	80	70
03-02-01365	S-D	75	120
03-02-01366	S-D	60	200
03-02-01367	S-D	50	95
03-02-01368	S-D	45	255
03-02-01369	S-D	30	290
03-02-01370	S-D	22	350
03-02-01371	S-D	15	410
03-02-01372	S-D	11	180
03-02-01373	DOL	8	160
03-02-01374	DOL	6	260
03-02-01375	S-R (5 STAGE) WITH IMPEDANCE	1100	10
03-02-01376	S-R (5 STAGE) WITH IMPEDANCE	1300	2
03-02-01377	S-D	1000	2
TOTAL			4150

**SECTION - 64 -
A-CABLES**

High tension cables , low tension cables and control cables according to the specification and quantity below

:-

Code	Cable size (mm²)	Length (m.l.)
03-02-01378	2 × 1.5	8500
03-02-01379	4 × 1.5	5500
03-02-01380	4 × 2.5	23500
03-02-01381	4 × 4	20 000
03-02-01382	4 × 6	34000
03-02-01383	4 × 10	27000
03-02-01384	4 × 16	23000
03-02-01385	3 × 25 + 16	16000
03-02-01386	3 × 35 + 16	26000
03-02-01387	3 × 50 + 25	20000
03-02-01388	3 × 70 + 35	13000
03-02-01389	3 × 95 + 50	14000
03-02-01390	3 × 120+ 40	10000
03-02-01391	3 × 150 + 70	10000
03-02-01392	3 × 185 + 70	4000
03-02-01393	3 × 240 + 120	14000
03-02-01394	3 × 300 +150	12000
03-02-01395	1× 300	8000
03-02-01396	1× 400	8000
03-02-01397	1× 500	8000
03-02-01398	3 × 150 H.T (11)KV	2000
TOTAL		306500

B:- Control Cables

Code	Cable size (mm²)	Length (m.l.)
03-02-01399	7 × 1.5	1000
03-02-01400	27 × 1.5	1200
03-02-01401	50 × 1.5	1100
TOTAL		3300

Fuses

Code	Gov. Name	Project Name	Rating (A)	Type	Qty
03-02-01402	Thiqar	Nassseria sewage	10	bottel	140
03-02-01403			15	bottel	145
03-02-01404			20	bottel	140
03-02-01405			25	bottel	140
03-02-01406			50	bottel	140
03-02-01407			15	catriadge	140
03-02-01408			20	catriadge	145
03-02-01409			25	catriadge	150
03-02-01410			45	catriadge	145
03-02-01411			50	catriadge	150
03-02-01412			100	catriadge	140
03-02-01413			250	catriadge	150
03-02-01414		Al-Iskan Sewage	5	bottel	130
03-02-01415			10	bottel	140
03-02-01416			15	bottel	145
03-02-01417			20	bottel	140
03-02-01418			25	bottel	150
03-02-01419			50	bottel	150
03-02-01420			15	catriadge	145
03-02-01421			20	catriadge	150
03-02-01422			25	catriadge	145
03-02-01423			45	catriadge	150
03-02-01424			50	catriadge	150
03-02-01425			100	catriadge	150
03-02-01426			250	catriadge	150
03-02-01427			400	catriadge	150
03-02-01428			500	catriadge	145
03-02-01429			500	bottel	150
03-02-01430			400	bottel	150
03-02-01431			300	bottel	150
03-02-01432	Baghdad		100	catriadge	100
03-02-01433			160	catriadge	100
03-02-01434			200	catriadge	100
03-02-01435	Qadisyia		500	catriadge	100
03-02-01436			400	catriadge	150
03-02-01437			200	catriadge	300
TOTAL					5245

terminal (Lug)

<i>Code</i>	<i>Size (mm)</i>	<i>Qty</i>
03-02-01438	10	1000
	16	1000
	25	1000
	35	1000
	50	1000
	70	1000
	95	1000
	120	1000
	150	1000
	185	1000
	200	1000
	240	1000
	300	1500
	400	1500
	500	1500
630	1500	
TOTAL		18000

section - 65-
Laboratory testing chemical material & equipment

Code	Description	Qty
03-02-01439	Basket , round with handle , plastic coated wire, 180 mm diameter x 160mm high	50
03-02-01440	Bottle , flat sides , with aluminum screw cap , capacity ~ 200ml	500
03-02-01441	Bottle , Mc cartney , capacity 28 ml	200
03-02-01442	Diphram pump for gases and liquids with staples mechanical speed adjustment , to deliver air approx 300 -1200 ml/min	2
03-02-01443	Filter paper , 150 mm dia , whatmen 42	200 packs
03-02-01444	Kohlransch volumetric flask with widened neck .volume 50 ml	200
03-02-01445	Laboratory conductivity meter range 0.0 to 10000 ms	30
03-02-01446	Conductivity cell for above meter , k ≥ 1	60
03-02-01447	Laboratory ph meter , accuracy + 0.01 ph	60
03-02-01448	Combination electrode for above ph -meter	100
03-02-01449	Petri dish sterilizing box 175 × 120 mm dia stainless steel	50
03-02-01450	Silicon grease , low & medium viscosity	20 tubes each
03-02-01451	Pipette sterilizing box , universal 65 mm dia for storage & sterilizing of pipette up to 420 mm long	50
03-02-01452	Transformer, voltage output 1-12v in variable steps(including 3,4,5,6, 9 and 12 v) AC & DC current output 6 A, input 220v, 50hz, AC .	2
03-02-01453	Water bath , 6 openings of 108 mm dia , stainless steel, removable cover .	13
03-02-01454	Water bath , with cover , for bacteriological purpose stainless steel temperature control ~ 15 litre capacity , with necessary test tube racks.	6
03-02-01455	Water distilling apparatus , all glass , 2-4 litre hour distillate conductivity > 4 ms /cm	21
03-02-01456	Nessler, Lovibond BDH , with all necessary discs reagents for determination FE, Mn , NO ₃ , NH ₄ , NO ₂ color in water	15
03-02-01457	Balance electronic capacity 210 g , precision ± 0.01 mg	6
03-02-01458	Balance electronic capacity 2 kg , precision ± 0.19	15
03-02-01459	Autoclave , vertical , ~ 30 litre capacity , with all necessary accessories & spare parts	6
03-02-01460	Spectrophotometer , UV/ VIS , 155 -1000 nm with necessary cells & other accessories and spare parts	6
03-02-01461	Over drying capacity 40- 60 litre , temperature up to 250C	10
03-02-01462	Hot air sterilizer double door up to 250 C , capacity ≤ 12 litre working volume , with time switch up to 2 hours	3
03-02-01463	Incubator , temperature up to 70 C , double door working volume ≤ 30 litre	6
03-02-01464	BOD measure set , 6 sample bottles for manometric BOD measurement in thermobox 20 C with all necessary bottles & other accessories .	11
03-02-01465	COD measure set , including 4 series flask heaters with all necessary glassware including round bottom flasks 250 ml with suitable condensers.	8
03-02-01466	Furnace , muffle , temperature up to 1100 C , 3-5 litre working capacity.	8
03-02-01467	Jar - tester , with 6 - mechanical stirrers , rpm regulator 0-200 rpm with necessary beaker & spare parts including drive belts.	15
03-02-01468	Bottle , reagent , clear glass , autoclavable with glass cover , narrow neck capacity 250 ml	2000
03-02-01469	Thermometer pocket mercury 10 to 50 C	50

Code	Description	Qty
03-02-01470	Conical flask wide neck pyrex capacity 250ml	500
03-02-01471	Conical flask wide neck pyrex capacity 500ml	200
03-02-01472	Volumetric flask, class B , with stopper , capacity 50 ml	110
03-02-01473	Volumetric pipette class B , capacity 2 ml	60
03-02-01474	Graduated pipette class B , capacity 10 ml	260
03-02-01475	Graduated pipette class B , capacity 1 ml	100
03-02-01476	Test - tubes , soda line glass , 20 x 180 mm	2000
03-02-01477	<i>CHEMICALS</i> Ammonia Solution	100 lit
03-02-01478	Ammonium Acetate	
03-02-01479	Barium chloride	
03-02-01480	Chloro form	50 lit
03-02-01481	Endo Agar	5 kg
03-02-01482	Etheyleyline diamine tetra acetic acid , No.	
03-02-01483	Hydrochloric acid , conc .	
03-02-01484	Ethyl Alcohol	
03-02-01485	Mac conkey Agar	5 kg
03-02-01486	Mac conkey Broth	200 kg
03-02-01487	Nutrient Agar	50 kg
03-02-01488	Plate count Agar	5 kg
03-02-01489	Pota ssium Hydroxide	10 kg
03-02-01490	Pota ssium Ferrocynate	2 kg
03-02-01491	Silver nitrate	5 kg
03-02-01492	Sulphuric Acid , conc	50 lit
03-02-01493	silver sulphate	5 kg
03-02-01494	O -Tolidine , hcl	5 kg

Section (66)

Flow Rate Measuring Equipment

Code No.	Description	Qty.
03-02-01495	a. Flow rate measuring equipment for water supply projectes	200
	b. Ditto for house connection	2000000

**SECTION - 67 -
SEWAGE COMPACT UNIT**

<i>Code</i>	<i>Project Name</i>	<i>Qty</i>
03-02-01496	(Sewage Compact Units for 1000 population	10
03-02-01497	(Sewage Compact Units for 10000 population	40
03-02-01498	(Sewage Compact Units for 20000 population	50
	Total	100

Section (68)

Bore Hole Drilling And Maintenance Machine

Code No.	Description	Qty.
03-02-01499	A- Bore Hole Drilling Machine	15
	B- Bore Hole Maintenance Machine	15
	Total	30

**SECTION - 69 -
Spare parts for chlorinators**

Code	Description	Qty
03-02-01500	Spare parts for chlorinators	L.S

**Section -70 -
Electric Motors**

Code	Governorate		Project Name	KW	r.p.m	Type	Qty
		Name					
03-02-01501		Wasit	1/ 4 million gallon C.U	30	1500	S.C	10
03-02-01502		Muothana	Rumaitha W.T.P	5.5	1500	V.S.C	15
03-02-01503		=	Rumaitha W.T.P *	0.15	1180	S.C	6
03-02-01504		Basrah	Karma C.U (1)	0.55	2900	V.S.C	12
03-02-01505		=	R.O / W.P.S	160	1500	S.C	3
03-02-01506		=	Karma C.U (2)	0.37	2900	V.S.C	4
03-02-01507		=	Kore -Al-Zber W.T.P	18.5	2930	S.C	10
03-02-01508		=	Kore -Al-Zber W.T.P	4	1500	V.S.C	6
03-02-01509		=	Kore -Al-Zber W.T.P	0.55	1500	V.S.C	3
03-02-01510		=	Kore -Al-Zber W.T.P	1.1	1500	V.S.C	2
03-02-01511		=	Al-Mudina W.T.P	45	1500	S.C	6
03-02-01512		=	Compact Unite	55	1500	S.C	42
03-02-01513		=	R.O / W.P.S	315	1500	S.C	9
03-02-01514		=	R.O / W.P.S	220	1500	S.C	4
03-02-01515		=	AQUA C.U.	7.5	1500	S.C	25
03-02-01516		=	(25) million Project	18.5	1500	S.C	25
03-02-01517		Missan	Unified W.T.P	120	1500	S.C	8
03-02-01518		=	Unified W.T.P	90	1500	S.C	8
03-02-01519		=	1/ 4 million gallon C.U	18.5	1500	S.C	20
03-02-01520		=	1/ 4 million gallon C.U	45	1500	S.C	20
03-02-01521		=	Unified Project	37.5	1000	S.C	8
03-02-01522		=	Al-Rafidan W.T.P	37.5	1500	S.C	8
03-02-01523		=	Raw Water B.S	150	750	S.C	4
03-02-01524		Diala	Baquba W.T.P	185	1500	S.C	10
03-02-01525		=	Baquba W.T.P	110	1500	S.C	10
03-02-01526		=	Baquba W.T.P	90	1500	S.C	10
03-02-01527		=	Baquba W.T.P	75	1500	S.C	10
03-02-01528		=	Baquba W.T.P	55	1500	S.C	10
03-02-01529		=	Baquba W.T.P	37	1500	S.C	10
03-02-01530		=	Baquba W.T.P	15	1000	S.C	10
03-02-01531		=	Kanaan W.T.P	30	1000	S.C	4
03-02-01532		=	Kanaan W.T.P	7.5	1400	S.C	4
03-02-01533		=	Baldroz	6	1000	S.C	12
03-02-01534		=	Al-Khalis *	1.5	1500	S.C	4
03-02-01535		=	Baldroz	3	1000	V.S.C	6
03-02-01536		=	Al-Saadiya W.T.P *	3.5	1000	S.C	1
03-02-01537		=	Kan Beni - Saad *	2	1000	S.C	6
03-02-01538		=	Kan Beni - Saad *	4	1000	V.S.C	10
03-02-01539		=	Kan Beni - Saad *	5	1000	V.S.C	4
03-02-01540		=	Jalawla W.T.P	1	1500	S.C	4
03-02-01541		=	Jalawla W.T.P	59	1500	S.C	6

Code	Governorate		Project Name	KW	r.p.m	Type	Qty
		Name					
03-02-01542		Nenewa	Motor for electric Valve	0.34	1350	S.C	50
03-02-01543		Nenewa	Motor for electric Valve	0.55	900	S.C	25
03-02-01544		=	Motor for electric Valve	0.27	900	S.C	20
03-02-01545		=	Motor for electric Valve	0.13	1400	S.C	20
03-02-01546		=	Motor for electric Valve	0.18	1400	S.C	20
03-02-01547		=	Mousal Right Bank W.T.P *	510	1500	S.C	20
03-02-01548		=		510	1500	S.C	20
03-02-01549		=		250	1500	S.C	15
03-02-01550		=		200	1500	S.C	15
03-02-01551		=		185	1500	S.C	20
03-02-01552		=		160	1500	S.C	20
03-02-01553		=		120	1500	S.C	20
03-02-01554		=		100	1500	S.C	20
03-02-01555		=		75	1500	S.C	20
03-02-01556		=		50	1500	S.C	20
03-02-01557		=		37.5	1500	S.C	25
03-02-01558		=		25	1500	S.C	25
03-02-01559		=		18.5	1500	S.C	30
03-02-01560		=		12.5	1500	S.C	30
03-02-01561		=		7.5	1500	S.C	30
03-02-01562		Tameem	Bor -holles (submersible)	15	3000	V.S.C	15
03-02-01563		=	Bor -holles (submersible)	22	3000	V.S.C	10
03-02-01564		Salaheldeen	Bafaq C.U *	3	3000	S.C	150
03-02-01565		=	Al-Shirqad W.T.P	75	1500	S.C	10
03-02-01566		=	Al-Shirqad W.T.P	37.5	1500	S.C	10
03-02-01567		=	Al-Shirqad W.T.P	18.5	1500	S.C	8
03-02-01568		=	Old Al-Shirqad W.T.P	15	1500	S.C	10
03-02-01569		=	Old Al-Shirqad W.T.P	11	1500	S.C	10
03-02-01570		=	Old Al-Shirqad W.T.P	7.5	1500	S.C	10
03-02-01571		=	Talol Al-Baaj	160	3000	S.C	8
03-02-01572		=	Al-Jarnaf C.U.	60	1500	S.C	8
03-02-01573		=	Al-Shirqad No. (2)	22	1500	S.C	10
03-02-01574		=	Baaja C.U.	18.5	1500	S.C	10
03-02-01575		=	Al-Shirqad No. (2)	15	1500	S.C	10
03-02-01576		=	Bafaq C.U. in Al-Dor *	3	3000	S.C	20
03-02-01577		Baghdad	Al-Rashedya w.t.p for scraper *	1.5	1500	S.C	6
03-02-01578		Najaf	Sewage Project	5.5	1500	V.S.C	10
03-02-01579		=	Sewage Project	7.5	1500	V.S.C	10
03-02-01580		Qadissia	Diwanyah W.T.P	90	1500	S.C	15
03-02-01581		=	Diwanyah W.T.P	250	1500	S.C	10
03-02-01582		=	Diwanyah W.T.P	75	1500	S.C	15
03-02-01583		=	1/ 4 million gallon C.U	18.5	3000	S.C	20
03-02-01584		Qadissia	Diwanyah W.T.P	5.5	1500	S.C	10
03-02-01585		=	Diwanyah W.T.P	11	1500	S.C	20
03-02-01586		=	Diwanyah W.T.P	2.2	1000	V.S.C	4
03-02-01587		=	Sewage Project	45	1500	V.S.C	10
03-02-01588		Qadissia	Sewage Project	1.1	1500	V.S.C	2
03-02-01589		=	Diwanyah B.S	7.5	1500	S.C	10
03-02-01590		=	Diwanyah W.T.P	45	1500	V.S.C	10

Code	Governorate		Project Name	KW	r.p.m	Type	Qty
		Name					
03-02-01591		Anbar	west desert (B4)	670	1500	S.R	5
03-02-01592		=	west desert (all pump station)	540	1500	S.R	15
03-02-01593		=	west desert (A1)	450	1500	V.S.C	4
03-02-01594		=	west desert (T.P)	100	1500	S.C	8
03-02-01595		=	west desert (T.P) / P.S	11	1500	S.C	20
03-02-01596		=	west desert (B6)	380	1500	S.C	8
03-02-01597		=	west desert (T.P)	7.5	3000	S.C	10
03-02-01598		=	west desert (B)	160	1500	S.C	8
<i>TOTAL</i>							1370

* *THE MOTOR MUST BE WITH FLANGE .*

**SECTION -71 -
Cleaning Equipment**

Code	Description	Qty.
03-02-01599	High tensile heavy duty steel kane rods fitted with two-way lock fast cadmium plated case hardened steel ferrules (2) m long for cleaning sewer pipes of up to (500) mm	10000 No.
03-02-01600	Locking spanner (double ended) to be used for the above mentioned rods	600 =
03-02-01601	Ratchel for hand rotation of the rods for (10) mm rod	300 =
03-02-01602	Socket for steel kan (10) mm rod connection	2500 =
03-02-01603	Socket holder for (10) mm rods	450 =
03-02-01604	Rod gripper for the rods	300 =
03-02-01605	Rotating handle for the rods	300 =
03-02-01606	Universal rollers for the steel kan rod	300 =
03-02-01607	Wheeled tool carrier for the steel kan rods	150 =
03-02-01608	Pointed spearhead for rods	300 =
03-02-01609	Chisels for (10) mm rods	600 =
03-02-01610	Drawing eye (for drawing rope or cable through drains or conduits) for steel kane rods	600 =
03-02-01611	Single worm screws for cleaning blockage suitable for pipes of diameter(100-300) mm	300 =
03-02-01612	Auger root cutter suitable for cleaning root blockage in pipes of : (140) mm and, (215) mm	300 = 300 =
03-02-01613	Crown root cutter suitable for cleaning pipe blockage (dual purpose, i.e. silt breaker or fibrous root cutter):(140) mm and, (215) mm	300 = 300 =
03-02-01614	Heavy duty PVC gloves size (10.5"), incorporating PVC granules on the palm and fingers to give high resistance to abrasion. Heavy duty PVC gloves standard chrome leather for general purpose size 10.5"	1000 Pairs 1000 Pairs
03-02-01615	Rubber PVC (10-12) boots	1200
03-02-01616	Face mask with filters giving acid cases	450
03-02-01617	Viking diving suits complete with breathing equipment and charged cylinder 13.6 kg for use with 1200 Ltr. cylinders	300
03-02-01618	Semperit sewerage flushing hose type IK 15 with 8 BR tupe braided textile reinforcement and NR/BR cover nom ID - 25 mm, nom OD - 39 mm, standard length 120 m operating pressure 150 bar, 95 kg/m and Nossels 1" dia.	1200 m.l 1200 no.
03-02-01619	Mobile Water pump operated by benzin engine delivery diameter 2" q=60m ³ /hr,h= 15m	200 No.

*Section - 72 -
Wire Winding For Motor*

Code	Standard	size	Qty (ton)
03-02-01620	32	0.28	10
03-02-01621	31	0.29	10
03-02-01622	30	0.31	10
03-02-01623	29	0.35	10
03-02-01624	28	0.38	10
03-02-01625	27	0.43	10
03-02-01626	26	0.47	10
03-02-01627	25.5	0.48	10
03-02-01628	25	0.5	10
03-02-01629	24.5	0.54	10
03-02-01630	24	0.56	10
03-02-01631	23	0.61	10
03-02-01632	22	0.71	10
03-02-01633	21.5	0.75	10
03-02-01634	21	0.81	20
03-02-01635	20	0.9	20
03-02-01636	19.5	0.95	20
03-02-01637	19	1	20
03-02-01638	18.5	1.12	20
03-02-01639	18	1.20	20
03-02-01640	17.5	1.3	20
03-02-01641	17	1.4	20
TOTAL			300

SECTION 73

Strainers

Code	Description	Qty NO.
03-02-01642	Flanged Strainer complete withfoot valve :-	
	a- (100) mm dia	250
	b- (150)mm dia	350
	c- (200) mm dia	500
	d- (250) mm dia	500
	e- (300) mm dia	500
	f- (350) mm dia	500
	g- (400) mm dia	500
	h- (450) mm dia	500
	i- (500) mm dia	500
	j- (600) mm dia	300
	k- (700) mm dia	100
	Total	4500

SECTION 74

Valves

Code	Description	Qty NO.
03-02-01643	Double flanged butterfly valves with flanged socket & spigot pieces, complete :- a- 1200 mm. dia. b- 1000 mm. dia. c- 900 mm. dia. d- 800 mm. dia. e- 700 mm. dia. f- 600 mm. dia. g- 500 mm. dia. h- 450 mm. dia I- 400 mm. dia j- 350 mm. dia k-300 mm. dia	200 200 200 250 200 300 300 200 300 200 400
03-02-01644	Double flanged gate valves complete with flanged socket & spigot pieces, as below :- a- 450 mm. dia. b- 400 mm. dia. c- 350 mm. dia. d- 300 mm. dia. e- 250 mm .dia. f- 200 mm .dia. g- 150 mm .dia. k- 100 mm. dia.	200 300 200 400 350 300 300 400
03-02-01645	Double flanged (Non- return)valves complete with flanged socket & spigot pieces :- a-1200 mm dia b- 1000 mm dia a- 900 mm. dia. c- 800 mm. dia. d- 700 mm. dia. e- 600 mm. dia. f- 500 mm .dia. g- 450 mm .dia. h- 400 mm .dia. l- 350 mm. dia. j- 300 mm. dia. k- 250 mm. dia. i- 150 mm. dia m- 100 mm. dia.	50 50 100 100 100 150 200 250 250 400 400 500 500 500
03-02-01646	Mechanical float valves complete :- a- 400 mm dia b- 300 mm. dia. c- 250 mm. dia. d- 200 mm. dia. e- 150 mm. dia. f- 100 mm. dia	100 100 100 200 200 200
03-02-01647	Double kynatic air valves complete with surfaca box :- - 100 mm dia	550

Total

10100

**Section - 75 -
Electric Over Head Travelling Crane**

Code	Capacity (ton)	Clear Width Of Pumping Room (m)	Length Of Pumping Room (m)	Center To Center Of Column (m)	Dimensio n of Bracket (m)	Height from bracket to F.F.L (m)	Quantity (no.)	Price (C.I.F)
03-02-01648	5	8.5	21	3.5	0.3× 0.5 0.3 IS THE WIDTH OF CO.	5.0	10	
03-02-01649	5	8.5	21	3.5	0.3× 0.5	9.0	10	
TOTAL							20	

**SECTION - 76-
Bor holes Pumps**

Code	Gov. Name	Project Name	Q (m ² /hr)	H (m)	Qty
03-02-01650	Nenewa	Al-Baaja W.T.P	25	127	30
03-02-01651	=	Rabiala W.T.P	25	127	30
03-02-01652	=	Singar W.T.P	25	200	30
03-02-01653	=	Shikhan W.T.P	25	200	30
03-02-01654	Salahdeen	Brauagly W.T.P	50	132	50
03-02-01655	=	Brauagly W.T.P	50	40	20
03-02-01656	Anbar	Ruthba well Al-Nakhab	25	250	30
03-02-01657	=	Al-Walled well	25	400	30
03-02-01658	Mouthana	Al-salman	32	150	30
03-02-01659	=	Al-salman	28	130	30
03-02-01660	=	BSAIA WELL	35	200	30
Total					340

**Section - 77 -
Air Blowers**

Code	Capacity (m³/h)	Head (m)	Qty
03-02-01661	1600	10	26
03-02-01662	800	10	27
03-02-01663	600	10	28
03-02-01664	300	10	26
03-02-01665	400	10	26
03-02-01666	250	10	22
03-02-01667	200	10	27
03-02-01668	100	10	18
<i>TOTAL</i>			200

SECTION - 78 -
Horizontal End -suction Pump
for compact unite

1- Complete electrical horizontal end -suction pump with motors, starters, spare parts as mentioned below
 - Impeller of Bronze, shaft of stainless steel.

2- Squirrel cage motor, 3 Ph., 400 V, 50 Hz., IP55, Class F insulation coupled to the pump on steel frame.

3- Starter must be(star- delta)starter for motor above(5 KW)..below must be (D.O.L)starter.

- Motor rating must be (10%) more power required.

*(N PSH) of the pump not more than 5 M .

* The efficiency of the pumps should be not less 70 % accept the multistage pumps and

- Each starter must be steel cabinet IP 56 contain :-

One) Main isolating switch with main fuses.

Two) Contactors overload relay, timer

Three) phase failure

Four) (Ammeter, Voltmeter with selector switch indicating lamps,(3 No.) , (2 No.) push button- all on front of cabinet.

Five) 3 set of wiring diagram

- Spare parts for each pump

One) Impeller

Two) Shaft sleeve

Three) 2 No. sets of coupling rubber and pins .

Four) Set of Ball Bearing (for motor and pump) .(2 set)

Code	Q m3/h	H mt.	Qty	Motor	
				Type	R.P.M
03-02-01669	60	20	350	S.C	1500
03-02-01670	60	50	350	S.C	1500
03-02-01671	60	60	243	S.C	1500
03-02-01672	250	20	14	S.C	1500
03-02-01673	14	35	1300	S.C	3000
03-02-01674	200	15	45	S.C	1500
03-02-01675	200	40	35	S.C	1500
03-02-01676	200	60	94	S.C	1500
03-02-01677	100	100	18	S.C	1500
03-02-01678	50	71	45	S.C	1500
03-02-01679	60	70	92	S.C	1500
03-02-01680	60	40	295	S.C	1500
03-02-01681	250	25	13	S.C	1500
03-02-01682	250	60	14	S.C	1500
03-02-01683	75	20	14	S.C	1500
03-02-01684	75	60	14	S.C	2900
03-02-01685	50	20	35	S.C	1500
03-02-01686	150	20	14	S.C	1500
03-02-01687	140	40	13	S.C	1500
TOTAL					3000

Section - 79-
Sewage Submersible Pumps

Code	Capacity (m3/h)	Head (m)	Type of pump	Qty
03-02-01688	10	15	Raw Water	43
03-02-01689	100	25	Sewage	200
03-02-01690	200	25	Raw Water	170
03-02-01691	60	20	Raw Water	550
03-02-01692	300	20	Sewage	100
03-02-01693	150	20	Raw Water	100
03-02-01694	180	15	Sewage	20
03-02-01695	150	10	Raw Water	15
03-02-01696	90	10	Sewage	40
03-02-01697	80	20	Sewage	30
03-02-01698	70	20	Raw Water	60
03-02-01699	400	20	Sewage	75
03-02-01700	400	45	Raw Water	20
03-02-01701	20	15	Raw Water	186
03-02-01702	15	20	Raw Water	75
03-02-01703	800	12	Sewage	40
03-02-01704	14	35	Raw Water	54
03-02-01705	250	20	Sewage	124
03-02-01706	120	20	Raw Water	47
03-02-01707	2200	40	Raw Water	15
03-02-01708	1100	20	Raw Water	80
03-02-01709	600	20	Sewage	20
03-02-01710	500	20	Sewage	25
03-02-01711	35	15	Raw Water	57
03-02-01712	40	40	Raw Water	21
03-02-01713	60	40	Raw Water	23
03-02-01714	20	50	Raw Water	10
TOTAL				2200

SECTION 80
Cesspool emptern tanker

Code	Description	Qty NO.
03-02-01715	Cesspool emptern tanker	250

**Section - 81 -
Thermal Over Load**

Code	Rating (A)	Qty
03-02-01716	(480 - 510)	90
03-02-01717	(440-460)	150
03-02-01718	(240- 260)	250
03-02-01719	(190 - 220)	100
03-02-01720	(170- 200)	100
03-02-01721	(150-175)	70
03-02-01722	(140-160)	200
03-02-01723	(130- 150)	100
03-02-01724	(110-130)	175
03-02-01725	(105-125)	150
03-02-01726	(90 -110)	300
03-02-01727	(75- 105)	350
03-02-01728	(65- 80)	70
03-02-01729	(50- 70)	380
03-02-01730	(45 -57)	60
03-02-01731	(40 -80)	200
03-02-01732	(30 -50)	300
03-02-01733	(25 -35)	150
03-02-01734	(24 - 40)	285
03-02-01735	(20 - 60)	100
03-02-01736	(18 - 25)	70
03-02-01737	(15 -20)	200
03-02-01738	(9- 12)	260
03-02-01739	(3 - 6)	200
03-02-01740	(0.5 - 1.5)	100
03-02-01741	(0.4-1)	150
TOTAL		4560

**Section - 82 -
Electrical And Mechanical Machine And Tools**

<i>Code</i>	<i>Description</i>	<i>Qty</i>
03-02-01742	Diesel Driven Welding Machine 40 H.P	35
03-02-01743	Portable A.C Welding Machine rated welding current (120-160) Amp.	20
03-02-01744	Portable A.C Welding Machine rated welding current(200-400) Amp. & Acetylene welding set machine .	40
03-02-01745	electro - pneumatic rotary hammers(5-14)mm	60
03-02-01746	electro - pneumatic rotary hammers(5-25)mm	60
03-02-01747	electro - pneumatic rotary hammers(10- 36)mm	60
03-02-01748	Angle Crinders duoble insulated ,automatic brush cut , side handle	1500
03-02-01749	Cut of machine and Tirfor	L.S
03-02-01750	Tool Bag	300
03-02-01751	electronic fault detectors for cable & hydraulic press machine for cable	60

SECTION 84
Circuit breaker

- Air circuit breaker moulded case 380v , 50H7 , 3phase 3pole with thermal over load, magnetic short circuit protection breaker from 1600 A will be motorized type .
- Circuit breaker from 1600 A will be motorized type .
- Miniature Circuit breaker from (25)A and below.
- Breaking capacity as follows :
 - a- Circuit breaker rating 1000 A and above (100)KA.
 - b- Circuit breaker below 1000 A to (300 A) 50 KA .
 - c- Circuit breaker below 300 A will be 30 KA.

Code	Rating(A)	Qty
03-02-01756	10	1200
03-02-01757	16	480
03-02-01758	20	665
03-02-01759	25	890
03-02-01760	32	520
03-02-01761	40	900
03-02-01762	63	1840
03-02-01763	80	160
03-02-01764	100	1800
03-02-01765	150	700
03-02-01766	160	950
03-02-01767	200	1350
03-02-01768	250	1350
03-02-01769	300	150
03-02-01770	400	1100
03-02-01771	500	250
03-02-01772	630	700
03-02-01773	800	200
03-02-01774	1000	450
03-02-01775	1250	150
03-02-01776	1600	110
03-02-01777	2000	25
03-02-01778	2500	180
03-02-01779	3200	25
03-02-01780	4000	10
03-02-01781	5000	5
Total		16160

*

* **Note** : (3) Circuit breaker of 630 A in (11) kv, ITL :- 16 kv
IMX :- 40 kv

SECTION 85

Reverse Osmosis units

Code	Description	Qty
03-02-01782	Reverse Osmosis units 60 m ³ / day	20 No.

SECTION 86

Cesspit jetting untis

Code	Description	Qty NO.
03-02-01783	Cesspit jetting untis	150

Section -87 - Contactor

Code	Rating (A)	Voltage of coil (V)	Qty
03-02-01784	400	SF6 (3.3kv)	35
03-02-01785	700	380	600
03-02-01786	600	380	450
03-02-01787	450	380	450
03-02-01788	400	380	125
03-02-01789	330	380	150
03-02-01790	300	380	350
03-02-01791	210	380	150
03-02-01792	180	380	350
03-02-01793	150	380	300
03-02-01794	120	380	250
03-02-01795	100	380	280
03-02-01796	80	380	280
03-02-01797	63	380	280
03-02-01798	45	380	200
03-02-01799	20	380	200
03-02-01800	16	380	200
03-02-01801	630	220	180
03-02-01802	500	220	150
03-02-01803	450	220	200
03-02-01804	400	220	260
03-02-01805	350	220	300
03-02-01806	300	220	300
03-02-01807	280	220	150
03-02-01808	250	220	360
03-02-01809	225	220	270
03-02-01810	200	220	400
03-02-01811	180	220	300
03-02-01812	160	220	480
03-02-01813	150	220	1250
03-02-01814	125	220	750
03-02-01815	100	220	1000
03-02-01816	80	220	800
03-02-01817	63	220	1000
03-02-01818	50	220	700
03-02-01819	40	220	450
03-02-01820	30	220	500
03-02-01821	25	220	300
03-02-01822	20	220	500
03-02-01823	16	220	850
03-02-01824	10	220	450
TOTAL			16350

Section (88)

Rescue Vehicles (SNORKLE)

Code No.	Description	Qty.
03-02-01825	Rescue vehicles (SNORKLE)	10

SECTION 89

Soare part & equipment for shelter

Code	Item	Description								Qty	
03-02-01826		Circuiation and cenrifngal pumps :									
		Items	kw	R.P.M	PH	V	H _(m)	Q _{m³/h}	HZ		
	1	Circulation pump	0.25	2800	3	380	-	13-14	50	24	
	2	Circulation pump	1.1	1415	3	380	-	53-54	50	84	
	3	Circulation pump	2.2	1425	3	380	-	100	50	24	
	4	Circulation pump	4	2900	3	380	75	10	50	48	
	5	Circulation pump	7.5	2875	3	380	20	100	50	18	
	6	Circulation pump	0.37	2810	3	380	6.5	11	50	18	
	7	Circulation pump	3	2855	3	380	72	10	50	18	
03-02-01827		Compressed Air stution of air compressor with following specification								90	
		Max work pressure :- (10) bar Normal pressure :- (7) bar Flow rate :- (1.8) L/Sec At (7) bar Quantiy :- (90) PCs									
03-02-01828		Circuit- Breaker :									
		over loud rating A		Magnetic short circuit			Current A				
	1	950 - 1600		-			1600			12	
	2	100 -160		1000 - 1900			160			240	
	3	63 - 100		600 -1150			100			50	
	4	63 - 100		260 - 500			40			100	
	5	63 - 100		160 - 320			25			100	
6	10 - 16		100 - 200			16			100		
03-02-01828		Spare parts for Cummins diesel generator type NTA - 588 - G - BIG - CAM									
	1	Water pump assy								48	
	2	Goveror wood ward assy								24	
	3	Starter assy								24	
03-02-01830		Semi hermetic reciprocating compresor									
		No of cylinder	R.P.M	KW	PH	HZ	V.	Pressure (BAR)	R	Q m ³ / s	
	1	4	1500	20.5	3	50	400	31	12,22,50 2	0.02	33
2	4	1500	29.3	3	50	400	31	12,22,50 2	0.03	66	

SECTION 90

Wrecker Fixed on Vehicles and truck

Code	Description	Qty
03-02-01831	a. Wrecker fixed on vehicles chassis (2 x 4)	100
03-02-01832	b. Wrecker fixed on vehicles chassis (6 x 4)	100
Total		200

SECTION 91

SKY Lift

Code	Description	Qty
03-02-01833	SKY Lift	20

SECTION 92

POLYETHYLENE PIPES AND FITTINGS

Code	Description	Qty m.l
	A- polyethylene pipes should be working under 12 bars pressure all pipes should be supplied to our stores in a form of bundles not than (30) m each quantities as follows :	
	NOMINAL SIZE	
03-02-01834	1- 13 mm	150000
03-02-01835	2- 19 mm	100000
03-02-01836	3- 25 mm	750000
03-02-01837	4- 37 mm	300000
03-02-01838	5- 50)mm	300000
03-02-01839	6- 63 mm	100000
	B- UP.V.C saddle :	
03-02-01840	-(90) mm dia with brass ferrule suitable to connect poly ethy line pipe mentioned in lten (a) above of (13) mmdia	30000
03-02-01841	- Ditto but to connect (19)mm dia	15000
03-02-01842	- Ditto but to connect (25)mm dia	10000
03-02-01843	-(110) mm dia with brass ferrule suitable to connect poly ethy line pipe mentioned in lten (a) above of (13) mmdia	200000
03-02-01844	- Ditto but to connect (19)mm dia	100000
03-02-01845	- Ditto but to connect (25)mm dia	50000
03-02-01846	- Ditto but to connect (37)mm dia	30000
03-02-01847	-(160) mm dia with brass ferrule suitable to connect poly ethy line pipe mentioned in lten (a) above of (13) mmdia	120000
03-02-01848	- Ditto but to connect (19)mm dia	700000
03-02-01849	- Ditto but to connect (25)mm dia	50000
03-02-01850	- Ditto but to connect (37)mm dia	30000
03-02-01851	- Ditto but to connect (50)mm dia	10000
03-02-01852	-(225) mm dia with brass ferrule suitable to connect poly ethy line pipe mentioned in lten (a) above of (13) mmdia	100000
03-02-01853	- Ditto but to connect (19)mm dia	50000
03-02-01854	- Ditto but to connect (25)mm dia	30000
03-02-01855	- Ditto but to connect (37)mm dia	20000
03-02-01856	- Ditto but to connect (50)mm dia	10000
03-02-01857	- Ditto but to connect (63)mm dia	20000
03-02-01858	C- Tapping tool complete with ratchet , (3) cutter for p.v.c , saddle adaptor, pipe adapter and portable tool bol with hexogen key and lever for tapping saddle branch dia as follows :	
	(16 - 25) mm (32 - 40)mm (50 - 63) mm	500

SECTION 93

Spare part for scaina model 1981

Code	No.	Description	lorry part. No (DS)	Qty	ciesspit part No. (SN)	Qty
03-02-01859	1	Turbo charger	252320	30		
	2	Cylinder block	295214	10	295214	10
	3	Cylinder liner	273759	30	235828	30
	4	In take valve	324573	60	324573	60
	5	Exhaust valve	232018	60	232018	60
	6	Set intake valve	289517	60	289517	60
	7	Set exhaust valve	289518	60	289518	60
	8	set of piston	307079	20	307081	20
	9	set of piston ring	550170	30	550170	30
	10	connecting rod	318062	15	318062	15
	11	Bushing	170094	120	170094	120
	12	set of bearing shell	279620	30	279620	30
			279621	30	279621	30
			279622	30	279622	30
			279623	30	279623	30
			279624	30	279624	30
			279625	30	279625	30
			279626	30	279626	30
	13	Crank shaft	279580	20	279580	20
	14	Fly wheel	306991	15	306991	15
	15	Vibration damper	131296	15	131296	15
	16	Cam shaft	238401	50	228830	50
	17	Set of cam shaft bearing	157274	60	157274	60
	18	Set of cam shaft bearing	131115	60	131115	60
	19	Set of cam shaft bearing	131455	60	131455	60
	20	Set of push rod	271676	30	271676	30
	21	Oil pump	301473	50	301473	50
	22	Ball bearing for oil pump	152897	50	152897	50
	23	Lubrication oil cleaner	300162	25	300162	25
	24	Oil cooler	266794	50	266794	50
	25	Set of bearing shall	274610	50	274610	50
			274611	50	274611	50
			274612	50	274612	50
			274613	50	274613	50
			274614	50	274614	50
			274615	50	274615	50
			274616	50	274616	50
	26	Radiator	310080	20	310080	20
	27	Rep-kit for injection pump	550137	60	550137	60
	28	Rep-kit for centrifugal gover	559138	60	559138	60
	29	Rep-kit for feed pump	550140	60	550140	60
	30	Rep-kit for primiry filter	550300	30	550300	30
	31	Rep-kit for clutch servo	550432	50	550432	50
	32	Water pump	292761	70	292761	70
	33	Ball bearing Inner	228836	50	228836	50

Code	No.	Description	lorry part. No (DS)	Qty	ciesspit part No. (SN)	Qty
	34	Ball bearing outer	258267	20	258267	20
	35	Fan	232169	50	232169	50
	36	Feed pump	211005	100	192847	100
	37	Set of nozzle	232149	30	232144	30
	38	Fuel cleaner	303797	60	303797	60
	39	Disc	304398	60	304398	60
	40	Lining set	550432	15	550432	15
	41	Gear pump	194838	50	194838	50
	42	Ball bearing clutch	550421	50	550421	50
	43	Clutch servo	298953	50	298953	50
	44	Set rep-kit for hydraulic cylinder	292962	20	292962	20
	45	Set rep-kit for clutch	550421	150	550421	150
	46	Gear box	314748	50	314748	50
	47	Three way valve	317340	150	317340	150
	48	Magnetic vavle	303470	10	303470	10
	49	Cross joint	294380	50	294380	50
	50	Central gear	304243	50	304207	50
	51	Central gear	322576	50	317387	50
	52	Pump with motor	309776	50	309776	50
	53	Spring brake champer	295387	50	295390	50
	54	Stator motor	163394	50	163394	50
	55	Rotor	305154	50	305154	50
	56	Ball bearing	305156	100	305156	100
	57	Stator	308508	50	308508	50
	58	Alternator	305152	50	305152	50
	59	Diod	305158	50	305158	50
	60	Main shaft	317960	30	317960	30
	61	Driving shaft	297903	15	297903	15
	62	Brush plate	308507	150	308507	150
	63	Insulation	193511	150	193511	150
	64	Stator relay	192976	150	192976	150
	65	Stub axles	131430	20	131430	20
	66	Oil pressure valve	259100	20	259100	20
	67	Power steering gear	319975	20	319975	20
	68	Oil pressure manimeter	275750	20	275750	20
	69	Injection pump	279077	50	302133	50
	70	Alternator	279698	50	279698	50
	71	Ball bearing	168248	50	168248	50
	72	Hub damper	277611	15	305742	15
	73	Ball bearing clutch	14831	60	14831	60
	74	Inter prop shaft	317505	15	317505	15
	75	Set of complete parts of chassis		50		50

SECTION -94-
Communication System

Code	Description	Qty
03-02-01860	Wirless System HF Transceiver with accessories	285
03-02-01861	Switching Digital PABX 2000 Line with accessories	1
03-02-01862	Ditto 500 Line with accessories	5
03-02-01863	Ditto 200 Line with accessories	22
03-02-01864	Digital Key System with accessories	270
03-02-01865	Wirless Telephone with accessories	20

SECTION -95-
Motor Cycle

Code	Description	Qty
03-02-01866	Motor Cycle	25

SECTION -96-
Rescue Boat

Code	Description	Qty	
03-02-01867	Rescue Boat	20	

MISCELLANEOUS

03-02-01868*	Tins of 0.75 KG of lubricating paste for joints		
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03-02-01872	Asbestos suit for fire fighting including jacket, trousers and boots	1,500	suit
03-02-01873	Breathing apparatus for fire fighting	500	
03-02-01874	helmets	none	1,000pieces
03-02-01875	Mechanical light torch	500	
03-02-01876	Manual light torch	500	

03-02-01877	Horizontal - centrifugal Pump 200 m3/hr H=50 w.c.m.	80 pcs	
03-02-01878	Dosing pump 260 L/hr (26 l/hr 10%) (PVC)	70 pcs	
03-02-01879	Mixer / stirrer 1000 rpm s.st shaft 0.25 NP s.st blades	50 pcs	
03-02-01880	Mixer / stirrer 1000 rpm s.st shaft 0.25 NP s.st blades	50 pcs	
03-02-01881	Chlorinator 0-2 kg / hr (complete) & Ejector	80 pcs	
03-02-01882	Centrifugal Multi stage pump 2 m3/hr s.st case, s.st shave, st..steel shaft	80 pcs	

CODE	DESCRIPTION	QTY	UNIT
03-02-01883	Butterfly valve	100	piece
03-02-01884	Non-return valve	100	PIECE
03-02-01885	Submersible centrifugal pump 230 m3/hr 20 w.c.m.50	55	PIECE
03-02-01886	Level switch	50	PIECE
03-02-01887	Butterfly valve	200	PIECE
03-02-01888	Butterfly valve	400	PIECE
03-02-01889	Butterfly valve	200	PIECE
03-02-01890	Butterfly valve	250	PIECE
03-02-01891	Non-return valve	100	PIECE
03-02-01892	Non-return valve	50	PIECE
03-02-01893	Draught-hole valve	200	PIECE
03-02-01894	Ball valve DN 80 (PN 10)	50	PIECE
03-02-01895	Manometer (0-10) bar	400	PIECE
03-02-01896	Y-strainers DN 50	100	PIECE
03-02-01897	Pressure regulator	50	PIECE
03-02-01898	Flow meter	25	PIECE
03-02-01899	Relief valve	100	PIECE
03-02-01900	Manometer	100	PIECE
03-02-01901	Switch level	100	PIECE
03-02-01902	Sensor level	100	PIECE
03-02-01903	Y-strainers	100	PIECE
03-02-01904	Polyethylene	100	PIECE
03-02-01905	Non-return valve	100	PIECE
03-02-01906	PVC non-return valve	100	PIECE
03-02-01907	Flow switch	50	PIECE
03-02-01908	electric parts for drinking water plant	1	lot
03-02-01909	Ball valve DN 50	100	PIECE
03-02-01910	Galvanized excentric reducer 8"x6" DIN DN 2616	120	PIECE
03-02-01911	Galv-Concentric reducer 5"x6"	220	PIECE
03-02-01912	Galv-Concentric reducer 6"x8"	340	PIECE
03-02-01913	Galv-Concentric reducer 4"x8"	600	PIECE
03-02-01914	Galv-Concentric reducer 12"x8"	340	PIECE
03-02-01915	Galv-Concentric reducer 6"x4"	460	PIECE
03-02-01916	Galvanized elbow LR 90 3" DIN 2605	600	PIECE
03-02-01917	Galvanized elbow LR 90 4" DIN 2605	850	PIECE
03-02-01918	Galvanized elbow LR 90 6" DIN 2605	280	PIECE
03-02-01919	Galvanized elbow LR 90 8" DIN 2605	800	PIECE
03-02-01920	Galvanized elbow LR 90 12" DIN 2605	120	PIECE
03-02-01921	Elbow (Galvanized) LR 45 4"	340	PIECE
03-02-01922	Galvanized equal Tee 6"	120	PIECE
03-02-01923	Galvanized equal Tee 8"	360	PIECE
03-02-01924	Galvanized Cup 8" DIN 2617	240	PIECE
03-02-01925	Galve-pipe 1 1/2" SCH 80	1,000	METRE
03-02-01926	Galve-pipe 3" SCH-STD	1,000	METRE
03-02-01927	Galve-pipe 4" SCH-STD	3,000	METRE
03-02-01928	Galve-pipe 6" SCH-STD	3,000	METRE
03-02-01929	Galve-pipe 8" SCH-STD	6,000	METRE
03-02-01930	Galve-pipe 12" SCH-STD	1,100	METRE
03-02-01931	Galve-pipe 5" SCH-STD	1,250	METRE
03-02-01932	Galve-pipe 3" SCH-STD	1,375	METRE
03-02-01933	Galve-pipe 2,5" SCH-STD	1,000	METRE
03-02-01934	Galve-pipe 1,5" SCH-STD	500	METRE

CODE	DESCRIPTION	QTY	UNIT
03-02-01935	Galve-pipe 2" SCH-STD	150	METRE
03-02-01936	Galve-pipe 1" SCH-STD	675	METRE
03-02-01937	Pressure gauge 10 Bar 100 mm	50	PIECE
03-02-01938	Chlorinator up 20-400 GR-HR	140	PIECE
03-02-01939	Low speed mixer 93 rpm kw: 0.75	70	PIECE
03-02-01940	High speed mixer 1500 rpm kw: 1.5	70	PIECE
03-02-01941	High speed mixer for sulphate 1500 rpm kw: 0.55	50	PIECE
03-02-01942	Dosing pump 0-40 L/HR - Head 6 bar	140	PIECE
03-02-01943	Set valve 10 Bar (1/2)"	50	PIECE
03-02-01944	Non-return valve PVC 1/2"	100	PIECE
03-02-01945	Non-return valve 2,5"	100	PIECE
03-02-01946	Compressor valve 1/4"	50	PIECE
03-02-01947	Floating 4"x2,5"	50	PIECE
03-02-01948	Elect-floating level switch IP55 Material/Reniforced Poly-Pro	50	PIECE
03-02-01949	Galv-elbow DIN 2605 2,5"	900	PIECE
03-02-01950	Galv-elbow DIN 2605 5,5"	50	PIECE
03-02-01951	Galv-elbow DIN 2605 3/4"	50	PIECE
03/02/01952	Galv-elbow DIN 2605 1"	500	PIECE
03-02-01953	Galv-elbow DIN 2505 3"	500	PIECE
03-02-01954	Butterfly valve 2,5"	400	PIECE
03-02-01955	Pressure valve O.D. 1/4"x1/2"	50	PIECE
03/02/01956	Ball valve 1/2" (Crom)	250	PIECE
03-02-01957	Gate valve 5" (Hand wheel)	50	PIECE
03-02-01958	Ball valve 1" (crom with hand lever)	150	PIECE
03-02-01959	3-Way valve 3"	150	PIECE
03-02-01960	Butterfly valve 3"	250	PIECE
03-02-01961	Compressor Head 10 bar , cup 185 L/min	70	PIECE
03-02-01962	Pressure Gauge 10 Bar O.D. 63 mm	100	PIECE
03-02-01963	High lifting pump head 80 sp. 2900 rpm	153	PIECE
03-02-01964	Vertical flowmeter Type DN 125 - 120 mc/hr	50	PIECE
03-02-01965	Level sensor ST. Steel L=50cm	50	PIECE
03-02-01966	Galv-reducer 2"x1"	50	PIECE
03-02-01967	Booster pump cap. 1M3/hr Speed=2900 rpm, Head=60 MWC	150	PIECE
03-02-01968	Pressure Gauge 16 Bar O.D 63 mm	100	PIECE
03-02-01969	Pressure Gauge 10 Bar O.D 160 mm	50	PIECE
03-02-01970	Pressure Gauge valve 1/2"x1/4"	200	PIECE
03-02-01971	Pressure Gauge valve 1/2"x1/2"	100	PIECE
03-02-01973	Horizontal flow meter	50	PIECE

03-02-01974	cooled rolled steel (1*1500*3000)	60tons
03-02-01975	cooled rolled steel (1.5*1500*3000)	75tons
03-02-01976	cooled rolled steel (2*1500*3000)	75tons
03-02-01977	hot rolled steel (4*1500*3000)	150tons
03-02-01978	hot rolled steel (5*1500*3000)	150tons
03-02-01979	hot rolled steel (6*1500*3000)	150tons
03-02-01980	hot rolled steel (8*1500*3000)	150tons
03-02-01981	hot rolled steel (10*1500*9000)	150tons
03-02-01982	hot rolled steel (12*1500*3000)	150tons
03-02-01983	hot rolled steel (12*1500*3000)	150tons
03-02-01984	hot rolled steel (14*1500*3000)	150tons
03-02-01985	steel plates (8*2500*10000)	105tons
03-02-01986	steel plates (13*2500*10000)	105tons
03-02-01987	steel plates (12*2500*10000)	105tons
03-02-01988	square stell tube (120*120*6000)	100tons

03-02-01989	PVC resin grade REON	3,335	Mt
03-02-01990	NAFTOMIX SRX 221 additives	100	Mt

SECTOR:Water and Sanitation - Phase VII

Subsector:General Establishment for Water and Sewerage
Requirements

Additions amended 28 August 2000

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-01991	Waste water treatment plant at Abu- Ghraib, Baghdad	1	
	PLANT (2) AT SAMMURA SALAH AL - DIN GORERNERATE		
	Horizontal axes surface aerator as shown in layout diagrams 1,2,3 with following spesification:		
03-02-01992	1-.hemicylindrical plate cover diam 1.64m and length 4.8 m/gauge 18	2	
03-02-01993	2. galvanized iron rotor Diameter 0.8 m	2	
	3- .rotor speed 80 r.p.m		
	4-.rotor fixed angles 12 (3" x3 " x 3/8")		
	5-dimension of aerator galvanized plate (5x15x0.5) cm		
	6.electrical motor for the rotor ,with the following specification:-		
	Electrical motor with mechanical gear boxes and a switch board is used to control the operation of the four motors either manually or automatically with steel cabinet of suitable size, the cabinet shall be solidly earthed and contains all the required switches, meters, contractors, relays , timersetc. Four cable feeders emerge from the cabinet to feed of the four motors independently		
	*-manual mode each motor may be started and stopped independently		
	*-Auto mode using this mode of operation ,two motors located on one side of the pool shall be operated alternatively every 6 hours . two timer switch with readjusted setting shall be used for this purpose .the period of taking over between the two motor shall be as minimum as possible		
03-02-01994	1-Electric motors of the induction type with mechanical gear box unit , 3-phase ,4-pole, 380V,50Hz.30hp,rating current, insulation glass F, IP 54 ,gear box ratio 1/18	4	
03-02-01995	2- Isolating switch with fuses ,400v,100a	1	
03-02-01996	3-Ammeter 0-200 A	3	
03-02-01997	4-Volt meter with change over switch 0-400 V	1	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-01998	5-Earthling loops of 50 mm ² copper rods with connecting lead	1	
03-02-01999	6-Circuit breaker with earth leakage relay 400 V 60 A,3-phase	2	
03-02-02000	7-Contractor with thermal over load protection and on-off push bottoms 400V,40A,3-phase	4	
03-02-02001	8-Selector switch 380V,5A for manual ,auto operation	1	
03-02-02002	9-Timer switch with break before make switch, 24hour,220V,2A	2	
03-02-02003	10-Steel cabinet of about 100x50x25 cm size with door	1	
03-02-02004	11-Cable PVC sheathed 4x25 mm ² (meter long)	150	m
03-02-02005	Special pump to remove the sludge conventional non Clog-slow speed centrifugal pump or mixed flow Centrifugal pump, with variable - speed drive to Control the recycle, and adjustable timer to control The working pumps alternatively every 8 hoursHead pumping not less than 10 m.Max capacity : 25 m ³ /hrNormal operational capacity: 550 m ³ /day	3	
03-02-02006	Special pump to remove the sludge : Type: centrifugal pump Capacity: 20 m ³ /hr Head pumping not less than 50 m	4	
03-02-02007	Air compressors with following specification: Air flow rate capacity up to 25 m ³ /min Normal operating capacity 12 m ³ /min Pressure up to 60 lb/in ² 1000 r.p.m , 40kw ,380 v, 30hp	2	
03-02-02008	Epoxy coating	1,000	liter
03-02-02009	Epoxy paint	600	liter
03-02-02010	COMPLETE PUMPS OF DIFFERENT CAPACITY	DIFFERENT QTY.	
03-02-02011	FILTERS FOR REMOVING WASTE PRODUCTE	=	
03-02-02012	AUTOMATIC CONTROL OF DIFFERENT TYPES	=	
03-02-02013	RUBBER LINED VALVES & DIAPHRAGM OF DIFFERENT SIZES	=	
03-02-02014	RUBBER LINED EQUIPMENTS	=	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-02015	Lifting pumps 4 Nos. (3+1)Capacity 100m ³ /hr Type Centrifugal- Horizontal Non clogging type sewage typeMaterial of construction cast iron Motor Speed1500 rpm Motor power 15 Kw IP - 54offer include all piping with in pump house P. fittings, valves, check valves, strainer, expansion joints, pressure gages, pump base plate & pump inter lock	16	set
03-02-02016	Submersible pump in pump house Capacity Head Motor Speed 1500 rpm Motor power 1.5 kW IP - 54 Price include piping, pipefitting, valves, check valves, pressure gages, pipe support pump inter lock	2	
03-02-02017	Electric hoist moved along I beam bridge fixed to the pump house, prices include I beam bridge & support. Capacity 2 ton.	2	10m ³ /hr
03-02-02018	Concrete grit chamber size (10 x 2 x 1.35)M Used as simple grease trap & neutralization after screening: No. Of screen 2 No. Type Manually Raked Bar spacing 12 mm Screen size (860x600x750)mm deep Material of construction Stainless Steel	4	
03-02-02019	PH adjustment & controller	4	
03-02-02020	Chemical dosing systems	2	Set
03-02-02021	Sulphuric acid dosing system compressing Solution tank 1 no. Capacity 1800 Litter Material FRG Tank should have inlet, outlet, drain nozzle, low speed agitator complete with motor gear box and ITS frame if required. Sulphuric acid dosing pump 2 no. (1+1) Capacity 0-300 l/hr Head 2-4 Bar Motor power 1.5 kW System to be complete with all piping fittings, valves, check valve strainer, pipe support and pump interlock.	2	Set
03-02-02022	Caustic soda or (lime) dosing system compressing: Solution tank & nutrition system. 1 no. Capacity 1800 Litter Material FRG Tank should have inlet, outlet, drain nozzle, low speed electric agitator complete with gear box and ITS frame. Caustic soda dosing pump 2 no. (1+1) Capacity 0-200 l/hr Head 2-4 Bar Motor power 1.5 kW System to be complete with all pipe fittings, valves, check valve strainer, pressure gauges, pipe support and pump interlock.	4	Set

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-02023	Alum dosing system compressing: Solution tank 1 no. Capacity 1800 Litter Material FRG Tank should have inlet, outlet, drain nozzle, low speed electric agitator complete with gear box and ITS frame. Alum dosing pump 2 no. (1+1) Capacity 0-400 l/hr Head 2-4 Bar Motor power 1.5 kW System to be complete with all pipe fittings, valves, check valve strainer, pressure gauges, pipe support and pump interlock.	2	Set
03-02-02024	Coagulation concrete tank size of (2 x 1.75 x 3.1) m. deep compressing low speed electric mixer complete with gear box and ITS frame motor power 2.5 kW	2	
03-02-02025	Rectangular primary sedimentation concrete tank size 15.5 x 7 x 5.1 m deep or clarifier 15m with all accessories compressing: Travelling bridge scraper system which moves along the side of the tank and is made of the following: 1) Fixed bridge linear drive unit, made of the following, 1-a) Steel structure to support the units of this system fixed to the central wall of the tank. 1-b) Linear movement motor of about 2.1 kW capacity 1400 RPM directly coupled to gear box to reduce the speed to 2-1 RPM. 1-c) Steel shaft and drums arrangement coupled to the above and supported by block bearing at both ends of the shaft and supported completely by the steel structure. The drums are designed in such away to house the steel wire and make their movement very easy. 2) Travelling bridge: This is design to carry and support the following equipments: 2-a) Electrically operated winch mechanism to lift the bottom scraper arrangement on ITS journey back home complete with pulleys and other accessories. 2-b) Cable support rails to be fixed along the side of the tank. 2-c) Four no. rail wheels and bearings to move the bridge along the tank. 2-d) Bottom scraper arrangement 2-e) Top scum scraper 3) Scum collecting tank of galvanized steel with guiding board .4) Outer weir 5) Steel ropes and brackets 6) Rail trucks to guide the movement of the bridge. 7) Electrical board to control the automatic operation of the complete system with limited switches and timers. Or supplier to supply their on travelling bridge consisting bottom and top scrape	4	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-02026	Aeration concrete tank (45 x 30 x 5.1) m deep, two compartment each (45 x 15 x 5.1) m deep compressing. Surface aerator complete with motor and gear box , torque tube, coupling, blades, base plate steel structure bridge along 15 m wide with 5 no. weir (slice & flab). Motor power 37.5 kW Motor/D & IP 54 Motor speed 1500 RPM Aerator speed 58 RPM Number of blade / aerator 8 no. Rotary vacuums filter 6.5ft x6ft height Air receiver 600 x 600h Moisture trap 600 x 600h Air blower cap 50 cfm .pressure 7.5 kg/cm2 Vacuum pump cap 400 cfm p=22 Chute	12	Nos
03-02-02027	Rectangular secondary sedimentation concrete tank size 15.5 x 7 x 5.1 m deep or clarifier 15m with all accessories compressing with same specification for primary. Sedimentation tank as per item no. (8)	4	
03-02-02028	Sludge pump Centrifugal horizontal non-clogging Pump 2 no. (1+1) / each settling tank Capacity 100 m3/hr Head 25 MWC Motor Speed 1500 rpm Motor power 15 Kw IP - 54 Sludge to be recycle to the aeration tank normally and the surplus to be pumped to the sludge thickener. Sludge pumps interlock with H-level of the sludge thicker by using motorized valve. Price include 8 no. pumps with ITS base plate and piping required, pipefitting, valves, check valves, pressure gages, reducer pipe support and pump interlock and motorized valve preset program.	16	
03-02-02029	Ductile cast iron pipe with ITS O-Ring required (push and joint) type K-9 as follows,		
	Ductile cast iron pipe 500 mm	480	
	Ductile cast iron pipe 300 mm	3548	m
	Ductile cast iron pipe 200 mm	48	
	Ductile cast iron pipe 150 mm	840	
	Ductile cast iron pipe 100 mm	420	
	set of inter connection pipe & pipe fittings		
03-02-02030	Cast iron gate valves should be fit with above size of ductile pipe		
	Cast iron gate valves 500 mm	4	
	Cast iron gate valves 150 mm	72	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
	Cast iron gate valves 100 mm	28	
03-02-02031	Drying pump Centrifugal horizontal pump Pump 2 no. (1+1) used to lift waste water from drying basin inside factor to the drying bed near waste water treatment plant (same area) Capacity 15 m3/hr Head 45 MWC Motor Speed 1500 rpm Motor power 5 kW Price include piping within pump house, pipefitting, valves, check valves, strainer flexible joint, pipe support, reducer, pump base plate, pump interlock with L.level in the drying basin	4	
03-02-02032	Disinfection Disinfection agent chlorine gas Dose rate 10 mg/l Required residual 1.5 mg/l Chlorine number 2 (1+1) Type vacum gas Capacity 0-2 kg.hr Number of cylinder 6 (3duty/3 stand-by) Capacity 50 kg Automatic change over panel Number of booster pumps 2 (1+1) Centrifugal horizontal Capacity 5 m3/hr - Gas leak detector extract fan (0.5 kW) wall type price include all pipes, pipe fittings, valves, pipe support Complete set of laboratory equipment for the plan	2	set
03-02-02033	Sludge thicker concrete 10 m compressing:- Fixed steel structure bridge. Bottom scraper moved by electric motor 7.5 kW and gear box to reduce the speed 1.25 RPM, motor type IP-54. Scraper fixed from upper side by the fixed steel structure via bearing and from the bottom on steel channel through thrust bearing. Weir and scraper and ITS accessories.	2	
03-02-02034	Sludge pump Pump sludge from sludge thickener to filter press(conveyor belt) Centrifugal horizontal non-clogging Pump 2 no. (1+1) Capacity 100 m3/hr Head 15 MWC Motor Speed 1500 rpm Motor power 10 kW IP - 54 Sludge pump to be interlock with low level in the sludge thicker and the working time of the filter press. Price include all piping with pump station, pipe fitting, valves, reducer, flexible joint, check valve, pressure gauge, pipe support and pump base plate.	6	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-02035	Sludge de-watering (sludge concentrator) Filter press Type 2 no. belt press complete with polymer mixing and dosing system, sludge feed pump and control panel & polyelectrolyte agitator Compressing Two conveyor Set of rollers Two stainless steel tray for collecting water Motor power 7.5 kW Gear box	4	
03-02-02036	Supply and install main distribution board with specifications as follow:1.Main circuit breaker 1000 AMP, moulded case C.B 42 kV (1 No.)2.Bus-bar 1250 A, 3 PH + N + E,one set3.Moulded case C.B, 3 PH , 42 kV, 100 AMP (6 No.)4.Moulded case C.B, 3 PH , 42 kV, 60 AMP (14 No.)5.Same as above for rating 15 A (22 No.)6.Same as above for rating 40 A (4 No.)7.Starter star - delta (l/D) for motor 37 kW/AC 3 contractors with push bottoms on/off and indication lamps on/fault and overload (6 No.)8.Direct on line (DOL) starter for motor 15 kW (1 No. running + 1 No. stand-by) with overload / AC3 contractors and indications lamps on/fault (8 No.)9.Same as above for motor 2.2 kW with automatic reversing (for word / reverse) by two limit switch for each two motor (4 No.)10.Same as item (9) for motor 1.5 kW (4No.)11.Same as item (7) for direct on line motor 2.5 kW (1 No.)12.Same as Item(11) with selector switch on/off operated by float switch for motor 15 kW. (4 No.)13.Same as Item (12) for motor 1.5 kW (1No.) 14.Same as item (8) for motor 1.5 kW controlled by PH meter (6 No.)15.Direct online starter with automatic and manual operation controlled by float switch for motor 1.5 kW (3 No.)16.Same as item (8) for motor 10 kW (2No.)17.Same as item (11) for motor 7.5 kW (1No.)18.Same as item (11) for motor 7.5 kW (1No.)19.Same as item (8) for motor 2.2 kW (2No.)20.Supply metering and indication lamps for main distribution board as below,One. Ammeter (3 No.) Two.Voltmeter with selector switch (1No.) Three. Frequency meter (1 No.)Indication lamp (3 No.)	2	nos
03-02-02037	Supply and install PVC/PVC cables with all accessories for installation as below		
	1. cable 4 x 4 mm2	2,200	
	2. cable 4 x 10 mm2	2,000	
	3. cable 4 x 50 mm2	1,400	
	4. set of cables & cable tray	2	lot
	5. set engine generator 500 kva	2	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
	6. transformer 1000 kva	2	
	7. switch gear .	2	
	8. programable logic control (plc).	2	
	9. Set of plant instrumentation .	2	set
	10. Site lighting & 3 No A/C unit 2 ton	2	Set
03-02-02038	Waste water pump centrifugal - horizontal - single stage / Manometric head = 30 MWC / Capacity = 25 m ³ / hr . Suction dia * discharge dia * impeller dia = (80 * 65 * 315) mm or (65 * 50 * 315) mm or (80 * 50 * 315) mm Shaft Seal by means of un cooled packed gland The material for casing and impeller are cast iron The pump complete with the electric motor 3-ph kw = 11 , RPM = 1450 , 50 HZ , Out door type IP54 or IP55 . Flexible coupling and assembly frame	8	
03-02-02039	Sluge pump centrifugal horizontal non clogging or semi open impeller.Head = 25 MWC. Capacity = 25 m ³ / hr . Suction dia * discharge dia = (80 × 65) mm Shaft Seal by means of un cooled packed gland The material for casing and impeller are cast iron The pump complete with the electric motor 3- ph power = 7.5 KW , speed 1450 rpm , 50 HZ,out door type IP54 or IP55 flexible coupling and assembly frame . Fluid density = 1.2 - 1.3 gr/ cm3	8	
03-02-02040	Gear motor is to motion the steel structure for sluge scraper / power = 2.1 kw / Speed of the motor = 1500 rmp / Speed of the scraper = 1.25 rpm	4	
03-02-02041	Gear motor for aerator for aeration tanks Motor power = 20 KW / Motor speed = 1450 rpm Aerator speed = 58 rpm / Gear ratio 1 : 25 Motor type IP54 (out door motor)/ Frequency = 50 HZ / Gear motor install vertically	12	
03-02-02064	Catalyst (manganese sulfide) MnSo4.H2O	30	tons
03-02-02065	Polymer (poly acrylic acid)	27	tons
03-02-02066	Sewage treatment station 1.high pressure jet tank car for sewage pipe lines cleaning.	2	
03-02-02067	2.Loading car 10 ton with self unloading system	2	
03-02-02068	3.poclain (chain driven)	3	
03-02-02069	4.surface aerator	8	

CODE	DESCRIPTION	QUANTITY	UNIT OF MEASURE
03-02-02070	5.Air compressor: Cap. 16-20 m3/min. Pr. 50Ib/inch2	4	
03-02-02071	6.surface air distribution net with nozzles	1	complete
03-02-02072	7.clorine addition control & addition system (complete)	1	complete
03-02-02073	8.sludge pump Q: 400m3/hr H:40 m H2O	5	
03-02-02074	Shuffel 80	2	
03-02-02075	Crain 20 Ton	1	
03-02-02076	Tank car for sewage with suction pump and Drainage	2	
03-02-02077	Incubator (Hot-Cold)	1	
03-02-02078	Lab. Water distillation Equ. Cap. 10l	1	
03-02-02079	Automatic burette 50cc	4	
03-02-02080	Shaker with U.V.	4	
03-02-02081	Conical Flask 5 l	24	
03-02-02082	Conical Flask 1 l	24	
03-02-02083	Conical Flask 1.5 l	24	
03-02-02084	Beaker 5 l	120	
03-02-02085	Beaker 0.5 l	120	
03-02-02086	Precieptation Material addition & Control System	1	
03-02-02087	PH Control Automatic	2	
03-02-02088	PH Meter Digital	4	
03-02-02089	Fork lift truck (5 Tons)	2	
03-02-02090	waste burning Unit Vol. 5 m3	2	
03-02-02091	Water Pump 450 m3/hr	5	
03-02-02092	Water Pump 240 m3/hr	4	
03-02-02093	Saloon pick up car Air conditioned 2seats 4 Passengers 4 Cylinders Model 1999-2000	2	
03-02-02094	Dunper 1-2 m3	2	
03-02-02095	Milk of lime dosing pump (P.V.C) Cap.: 1000 l/hr Max. P: 2-11 Bar Motor: 1.5 kW	2	
03-02-02096	Acid Dosing Pumps (P.V.C.) Cap. : 200 l/hr. P.: 2-4 Bar Motor : 1.5kW	2	
03-02-02097	gate Valve 500mm	30	
03-02-02098	gate Valve 150mm	30	
03-02-02099	gate Valve 100mm	30	
03-02-02100	Aluminium hydroxide	14,430	MT
03-02-02101	valve for cylinder 1 ton	3,000	
03-02-02102	valve for cylinder 50 kg.	3,000	
03-02-02103	safety valve	5,000	
03-02-02242	Electrical, mechanical and labarotary equipment for waste water plant	147/128	Pcs/m

