

## Project 1: Urban and semi-urban water supplies / Water treatment and testing / Pipes and specials

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-03001	UNICEF Commodity Code: 412713 GI pipe for drinking water supply, to be of mild steel, medium series, standard, longitudinally welded, (high induction frequency welding), hot dipped galvanized and passivated. Each pipe to be hydro tested or tested as per current method. To be manufactured as per iso 65-1981. Both ends male threaded ISO 7, socked one end (female threaded socket), duly galvanized and chamfered, and the other end protected with a HDPE threaded protector, covering entire thread of pipe, male threads to be protected with anti-rust zinc aluminum paste, socket threads to be protected with anti-rust varnish. Pipe/socket to adequately zinc coated to satisfy copper sulfate test as prescribed in appendix A of BS 1387 / 67 or equivalent ISO standard. Steel, zinc, anti-rust paste and varnish to be made from food grade material. Pipe length (excluding socket length): 5.8 meters. PN 25, Nominal diameter: ND 2.0 inch.	900	0	0	900	Each
03-05-03002	UNICEF Commodity Code: 412713 Same as item 1, PN 25, size 3.0 inch	900	1200	1400	3500	Each
03-05-03003	UNICEF Commodity Code: 412713 Same as item 1, PN 25, size 4.0 inch	800	500	1600	2900	Each
03-05-03004	UNICEF Commodity Code: 412713 Same as item 1, PN 25, size 6.0 inch	0	0	700	700	Each
03-05-03005	Unicef Commodity code 432417 Brass gate valve set with hand wheel, clockwise closing, FxF, threaded to BS21 (ISO R7), size 2.0 inch, PN 25. Food quality.	70	0	0	70	Each
03-05-03006	Unicef Commodity code 432417 Same as item 2, size 3.0 inch, PN 20.	70	0	10	80	Each
03-05-03007	Unicef Commodity code 432417 Same as item 2, size 4.0 inch, PN 16.	60	0	10	70	Each
03-05-03008	Unicef Commodity code 432417 Same as item 2, size 6.0 inch, PN 10.	10	0	5	15	Each
03-05-03009	Unicef Commodity code 432417 Brass non-return valve set, FxF, threaded to BS21 (ISO R7), PN 20, size 2.0 inch. Food quality.	25	0	0	25	Each
03-05-03010	Unicef Commodity code 432417 Same as item 3, size 3.0 inch, PN 18	25	0	0	25	Each
03-05-03011	Unicef Commodity code 432417 Same as item 3, size 4.0 inch, PN 16	20	0	0	20	Each
03-05-03012	UNICEF Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal elbows for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), 90 degree, FxF.	0	0	0	0	
03-05-03013	Unicef Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal elbows for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), 90 degree, FxF, size 2.0 inch, PN 25.	70	0	0	70	Each
03-05-03014	Unicef Commodity Code: 412837 Same as item 4, size 3.0 inch, PN 25	60	0	20	80	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-03015	Unicef Commodity Code: 412837 Same as item 4, size 4.0 inch, PN 25	70	0	20	90	Each
03-05-03016	Unicef Commodity Code: 412837 Same as item 4, size 6.0 inch, PN 25	20	0	10	30	Each
03-05-03017	Unicef Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal Tee-joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxFxF, size 2.0 inch, PN 25.	70	0	0	70	Each
03-05-03018	Unicef Commodity Code: 412837 Same as item 5, size 3.0 inch, PN 25	70	0	20	90	Each
03-05-03019	Unicef Commodity Code: 412837 Same as item 5, size 4.0 inch, PN 25	70	0	20	90	Each
03-05-03020	Unicef Commodity Code: 412837 Same as item 5, size 6.0 inch, PN 25	30	0	15	45	Each
03-05-03021	Unicef Commodity Code: 412837 Malleable cast iron, hot dip galvanized equal unions for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, size 2.0 inch, PN 25.	70	0	0	70	Each
03-05-03022	Unicef Commodity Code: 412837 Same as item 6, size 3.0 inch, PN 25	70	0	15	85	Each
03-05-03023	Unicef Commodity Code: 412837 Same as item 6, size 4.0 inch, PN 25	70	0	10	80	Each
03-05-03024	Unicef Commodity Code: 412837 Same as item 6, size 6.0 inch, PN 25	20	0	5	25	Each
03-05-03025	Unicef Commodity Code: 412837 Malleable cast iron, hot dip galvanized reducer joints for drinking water supply conforming to ISO R49 and threaded to BS21 (ISO R7), FxF, size 6.0 x 4.0 inch, PN 25	0	0	0	0	Each
03-05-03026	Unicef Commodity Code: 412837 Same as item 7, size 6.0 x 3.0 inch.	30	0	0	30	Each
03-05-03027	Unicef Commodity Code: 412837 Same as item 7, size 6.0 x 2.0 inch.	0	0	0	0	Each
03-05-03028	Unicef Commodity Code: 412837 Same as item 7, size 4.0 x 3.0 inch.	50	0	0	50	Each
03-05-03029	Unicef Commodity Code: 412837 Same as item 7, size 4.0 x 2.0 inch	50	0	0	50	Each
03-05-03030	Unicef Commodity Code: 412837 Same as item 7, size 3.0 x 2.0 inch	50	0	0	50	Each
03-05-03031	Unicef Commodity Code: 412835 Viking Johnson coupling for 90 mm, PN 25, Standard length pipe	0	20	0	20	Each
03-05-03032	Unicef Commodity Code: 412835 Same as item 8 but for 110 mm pipe.	30	17	0	47	Each
03-05-03033	Unicef Commodity Code: 412835 Same as item 8 but for 160 mm pipe.	30	15	0	45	Each
03-05-03034	V. J. Easi clamps for 90 mm, PN 25, Standard length pipe	25	2000	0	2025	Each
03-05-03035	Same as item 9 but for 110 mm pipe.	25	1000	0	1025	Each
03-05-03036	Same as item 9 but for 160 mm pipe.	25	500	0	525	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-03037	Same as item 9 but for 220 mm pipe.	25	0	0	25	Each
03-05-03038	Unicef Commodity Code: 412834 Stainless steel repair clamps, quality A131304 with waffled rubber seal according to DIN 3535. Double section for 80 mm pipe. PN 24.	0	10	0	10	Each
03-05-03039	Unicef Commodity Code: 412834 Same as item 10 but for 100mm pipe.	0	10	0	10	Each
03-05-03040	Unicef Commodity Code: 412834 Same as item 10 but for 150mm pipe.	0	10	0	10	Each
03-05-03041	Unicef Commodity Code: 412712 Ductile iron pipe with rubber gasket joints (Tyton joints) with rubber gaskets, 6 metres nominal length, 3 inch diameter. PN 25	0	3300	0	3300	Each
03-05-03042	Unicef Commodity Code: 412712 Same as item 11 but 4 inch dia.	0	1750	0	1750	Each
03-05-03043	Unicef Commodity Code: 412712 Same as item 11 but 6 inch dia.	0	1000	0	1000	Each
03-05-03044	Unicef Commodity Code: 412712 Same as item 11 but 8 inch dia.	0	200	0	200	Each
03-05-03045	Unicef Commodity Code: 412712 Same as item 11 but 10 inch dia.	0	100	0	100	Each
03-05-03046	Unicef Commodity Code: 412835 Equal elbows for ductile pipes with rubber gasket joints, 90 degree, with rubber gaskets, FxF, 3 inch dia, PN 25.	0	0	0	0	Each
03-05-03047	Unicef Commodity Code: 412712 Same as item 12 but 4 inch dia.	30	0	0	30	Each
03-05-03048	Unicef Commodity Code: 412712 Same as item 12 but 6 inch dia.	30	0	0	30	Each
03-05-03049	Unicef Commodity Code: 412712 Same as item 12 but 8 inch dia.	20	0	0	20	Each
03-05-03050	Unicef Commodity Code: 412712 Same as item 12 but 10 inch dia.	10	0	0	10	Each
03-05-03051	Unicef Commodity Code: 412712 Same as item 12 but 12 inch dia.	10	0	0	10	Each
03-05-03052	Unicef Commodity Code: 412835 Equal elbows for ductile pipes with rubber gasket joints, 45 degree, with rubber gaskets, FxF, 3 inch diam, PN 25.	0	0	0	0	Each
03-05-03053	Unicef Commodity Code: 412835 Same as item 13 but 4 inch diam	10	0	0	10	Each
03-05-03054	Unicef Commodity Code: 412835 Same as item 13 but 6 inch diam	10	0	0	10	Each
03-05-03055	Unicef Commodity Code: 412835 Same as item 13 but 8 inch diam	10	0	0	10	Each
03-05-03056	Unicef Commodity Code: 412835 Same as item 13 but 10 inch diam	10	0	0	10	Each
03-05-03057	Unicef Commodity Code: 412835 Same as item 13 but 12 inch diam	10	0	0	10	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-03058	Unicef Commodity Code: 412835 Equal Tees for ductile pipes with rubber gasket joints, with rubber gaskets, FxFxF, 3 inch diam, PN 25.	0	0	0	0	Each
03-05-03059	Unicef Commodity Code: 412835 Same as item 14 but 4 inch diam	10	0	0	10	Each
03-05-03060	Unicef Commodity Code: 412835 Same as item 14 but 6 inch diam	10	0	0	10	Each
03-05-03061	Unicef Commodity Code: 412835 Same as item 14 but 8 inch diam	10	0	0	10	Each
03-05-03062	Unicef Commodity Code: 412835 Same as item 14 but 10 inch diam	10	0	0	10	Each
03-05-03063	Unicef Commodity Code: 412835 Same as item 14 but 12 inch diam	5	0	0	5	Each
03-05-03064	Unicef Commodity Code: 412835 Ductile Tee Socket with rubber, 4x3 inch dia, PN 25.	0	0	0	0	Each
03-05-03065	Unicef Commodity Code: 412835 Same as item 15 but 6x4 inch dia	10	0	0	10	Each
03-05-03066	Unicef Commodity Code: 412835 Same as item 15 but 6x3 inch dia	0	0	0	0	Each
03-05-03067	Unicef Commodity Code: 412835 Same as item 15 but 6x6 inch dia	10	0	0	10	Each
03-05-03068	Unicef Commodity Code: 412835 Same as item 15 but 8x8 inch dia	5	0	0	5	Each
03-05-03069	Unicef Commodity Code: 412835 Same as item 15 but 8x6 inch dia	5	0	0	5	Each
03-05-03070	Unicef Commodity Code: 412835 Same as item 15 but 8x4 inch dia	10	0	0	10	Each
03-05-03071	Unicef Commodity Code: 412835 Same as item 15 but 8x3 inch dia	0	0	0	0	Each
03-05-03072	Unicef Commodity Code: 412835 Same as item 15 but 10x4 inch dia	5	0	0	5	Each
03-05-03073	Unicef Commodity Code: 412835 Same as item 15 but 10x6 inch dia	5	0	0	5	Each
03-05-03074	Unicef Commodity Code: 412835 Same as item 15 but 10 x 8 inch dia	5	0	0	5	Each
03-05-03075	Unicef Commodity Code: 412835 Parallel reducers for ductile pipes with rubber gasket joints, with rubber gaskets, FxF, 20x20 inch dia, PN 25.	2	0	0	2	Each
03-05-03076	Unicef Commodity Code: 412835 Same as item 16 but 12 x 10 inch dia	2	0	0	2	Each
03-05-03077	Unicef Commodity Code: 412835 Same as item 16 but 12 x 8 inch dia	2	0	0	2	Each
03-05-03078	Unicef Commodity Code: 412835 Same as item 16 but 12 x 6 inch dia	2	0	0	2	Each
03-05-03079	Unicef Commodity Code: 412835 Same as item 16 but 12 x 4 inch dia	2	0	0	2	Each
03-05-03080	Unicef Commodity Code: 412835 Same as item 16 but 10 x 8 inch dia	2	0	0	2	Each

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03-05-03081	Unicef Commodity Code: 412835 Same as item 16 but 10 x 6 inch dia	2	0	0	2	Each
03-05-03082	Unicef Commodity Code: 412835 Same as item 16 but 10 x 4 inch dia	2	0	0	2	Each
03-05-03083	Unicef Commodity Code: 412835 Same as item 16 but 8 x 6 inch dia	2	0	0	2	Each
03-05-03084	Unicef Commodity Code: 412835 Same as item 16 but 8 x 4 inch dia	2	0	0	2	Each
03-05-03085	Unicef Commodity Code: 412835 Same as item 16 but 6 x 4 inch dia	2	0	0	2	Each
03-05-03086	Unicef Commodity Code: 412835 Same as item 16 but 6 x 3 inch dia	0	0	0	0	Each
03-05-03087	Unicef Commodity Code: 412835 Same as item 16 but 4 x 3 inch dia	2	0	0	2	Each
03-05-03088	Unicef Commodity Code: 412835 Equal sockets for ductile pipes with rubber gasket joints, FxF, 4 inch dia, PN 25.	5	0	0	5	Each
03-05-03089	Unicef Commodity Code: 412835 Standard socket & spigot joints for ductile pipes with rubber gasket joints, with rubber gaskets, FxM, 3 inch dia, PN 25.	0	0	0	0	Each
03-05-03090	Unicef Commodity Code: 412835 Same as item 18 but 4 inch dia	5	0	0	5	Each
03-05-03091	Unicef Commodity Code: 412835 Same as item 18 but 6 inch dia	5	0	0	5	Each
03-05-03092	Unicef Commodity Code: 412835 Same as item 18 but 8 inch dia	5	0	0	5	Each
03-05-03093	Unicef Commodity Code: 412835 Same as item 18 but 10 inch dia	5	0	0	5	Each
03-05-03094	Unicef Commodity Code: 412835 Same as item 18 but 12 inch dia	5	0	0	5	Each
03-05-03095	Ductile Ion Adaptors from socket unit rubber joint to , PN 25 flanged end, 3 inch dia	0	0	0	0	Each
03-05-03096	Same as item 19, 4 inch dia	10	0	0	10	Each
03-05-03097	Same as item 19, 6 inch dia	10	0	0	10	Each
03-05-03098	Same as item 19, 8 inch dia	10	0	0	10	Each
03-05-03099	Same as item 19, 10 inch dia	10	0	0	10	Each
03-05-03100	Same as item 19, 12 inch dia	10	0	0	10	Each
03-05-03101	Unicef Commodity Code: 412835 Bolted flanged spigot joint for ductile pipes, with bolts, nuts & gaskets, 3 inch dia, PN 25, ISO flanges	0	0	0	0	Each
03-05-03102	Unicef Commodity Code: 412835 Same as item 20 but 4 inch dia	10	0	0	10	Each
03-05-03103	Unicef Commodity Code: 412835 Same as item 20 but 6 inch dia	10	0	0	10	Each
03-05-03104	Unicef Commodity Code: 412835 Same as item 20 but 8 inch dia	10	0	0	10	Each
03-05-03105	Unicef Commodity Code: 412835 Same as item 20 but 10 inch dia	10	0	0	10	Each

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03-05-03106	Unicef Commodity Code: 412835 Same as item 20 but 12 inch dia	10	0	0	10	Each
03-05-03107	Unicef Commodity Code: 412835 Flanged gate valves for dutile pipes with bolts, nuts & gaskets, 3 inch dia, PN 25, ISO flanges	0	70	0	70	Each
03-05-03108	Unicef Commodity Code: 412835 Same as item 21 but 4 inch dia	10	62	0	72	Each
03-05-03109	Unicef Commodity Code: 412835 Same as item 21 but 6 inch dia	15	40	0	55	Each
03-05-03110	Unicef Commodity Code: 412835 Same as item 21 but 8 inch dia	5	10	0	15	Each
03-05-03111	Unicef Commodity Code: 412835 Same as item 21 but 10 inch dia	5	0	0	5	Each
03-05-03112	Unicef Commodity Code: 412835 Same as item 21 but 12 inch dia	2	0	0	2	Each
03-05-03113	Unicef Commodity Code: 432417 Flanged, non-return valves for ductile pipes with bolts, nuts & gaskets, PN 25, ISO flanges, 3 inch diameter.	0	40	0	40	Each
03-05-03114	Unicef Commodity Code: 432417 Same as item 22 but 4 inch dia	10	40	0	50	Each
03-05-03115	Unicef Commodity Code: 432417 Same as item 22 but 6 inch dia	10	22	0	32	Each
03-05-03116	Unicef Commodity Code: 432417 Same as item 22 but 8 inch dia	10	10	0	20	Each
03-05-03117	Unicef Commodity Code: 432417 Same as item 22 but 10 inch dia	2	0	0	2	Each
03-05-03118	Unicef Commodity Code: 432417 Same as item 22 but 12 inch dia	2	0	0	2	Each
03-05-03119	Unicef Commodity Code: 432417 Flanged air valves for dutile pipes with bolts, nuts & gaskets, 3 inch dia, PN 25, ISO flanges	0	20	0	20	Each
03-05-03120	Unicef Commodity Code: 432417 Flanged foot valves with strainers 4 inch dia	10	0	0	10	Each
03-05-03121	Unicef Commodity Code: 432417 Same as item 24 but 6 inch dia	0	0	0	0	Each
03-05-03122	Unicef Commodity Code: 432417 Same as item 24 but 8 inch dia	0	0	0	0	Each
03-05-03123	UNICEF Commodity Code: 432512 Casing pipe, mild steel, commercial grade st-37 as per DIN 17100, food grade, for lining of water borehole One end male threaded, heavy duty female socket on the other end , To be produced according to DIN 4922 in lengths of 6 m, outer diameter 8 5/8 inch.	0	0	900	900	Each
03-05-03124	UNICEF Commodity Code: 432512 As in item 25 but pipe with slots of 2.3 mm width, length of 6 m, outer diameter 8 5/8 inch	0	0	170	170	Each

<b>CODE</b>	<b>DESCRIPTION</b>	<b>Doh</b>	<b>Erbil</b>	<b>Sul</b>	<b>QTY</b>	<b>Unit</b>
03-05-03125	Commodity Code: 432417 Gate valve for PVC pipes, ductile iron, as per ISO 2531, food quality, body, bonnet, wedge made of ductile iron, stem made of 13% chromium stainless steel, hand-wheel made of steel, asbestos free gland packing, wedge covered with special rubber, body and bonnet entirely coated with epoxy powder, average thickness 250 microns, clockwise closing and non rising stem design, face to face and center to face dimensions as per ISO 5752, double-flanged as per ISO 7005 with SS 304 bolts and nuts, and flat elastomer gasket as per ISO 4633-1983 complete with two flanged adapters (one end flanged, the other end with rubber joint), made of epoxy powder coated ductile iron (thickness 150 microns minimum) to connect the valve to 90MM outside diameter PVC pipes, each valve to be pressure tested as per ISO 5208 and delivered with a test certificate, DN and PN to be marked on the side face of the valve. Maximum working pressure at 20 degrees: 25 bars valve size 80 MM.	0	10	0	10	Each
03-05-03126	Same as item 27 but PVC pipe outside diameter 110 MM valve size 100 MM.	0	10	0	10	each
03-05-03127	Same as item 27 but PVC pipe outside diameter 160 MM valve size 150 MM.	0	10	0	10	Each

## Project 1: Urban and semi-urban water supplies / Water treatment and testing / Other materials

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-04001	Water tanker capacity 10000 litter, SCANIA or VOLVO manufacture, with export specifications for Iraq & spare aprts for two years operation.	7	0	0	7	Set
03-05-04002	UNICEF Commodity Code: 491792 Hino water tank truck model code: FF3HJSA LHD Specification No. T1/FF0134. 4X2 Forword Control Body No. SS/LH4989 All steel bonnet Type saftey cab, with full floting cab suspension, saftey Glass, colour white, engine: Hino Ho7 D, diesel vertical 6 cylinder in line, overhead valve, water cooled direct injection type, Max output 141 KW(190HP) at 2900 RPM, TRANSMISSION 6 speed direct drive, syncromesh 2nd-6th-cluch: Dry single plate with damper spring, Hydrolic control steering, circulating ball - wheel anbd tyre b stud desk wheels(JIS-Type), 9.00-20-14Pr-Fuel tank: 1151 tank volume 10,000 liters, Thickmess of shell, end late and buffer plate: 3.2 MM Tank construction, Ellipse sectional cyliderical tank with one component. Tank with a manhole hatch with an air breather pump: Centrifugal pump, 600 liter/min at 2500 rpm, accessories: section and delivery hoses 63.5 mmX3m. 2 each hose packing (spare), 4 each strainer for hose and hose wrench. Materials thickness: 3.2 mm for shell, end	1	28	38	67	Set
03-05-04003	UNICEF Commodity Code: 454200 HP-6L laser jet, with 5 additional toner cartridges.	0	1	0	1	Set

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-04004	Pre-fabricated compact unit of out put capacity 500CUM/Hour for water turbidity ranging from (10-750) including clarifying tanks, intermediate tank, Alum dosers, filters with intermeiate pumps, Chemical strelization unit. 1- Clarifying tank: could be open type. All internal components & surfaces of panels should be made of hot dip galvanized or coated with non-toxic black bituminous paints. Also all panels & structural steel shall be hot dip galvanized finished in red zinc phosphate & brown oil paint. The tank should have washing valve & over flow pipe. 2- Intermediate storage tank: The tank shall be of pressed steel sectional plates or equivalent to serve as suction tank for high lift pumps. 3- Alum dosers: There should be two alum solution tanks made of heavy-duty polyethylene, fiberglass of similar. To be suitable for water turbidity ranging from (10-200). 4- Filters: Should be vertical pressure filters made of M.S plates. The back washing system should completely automatic with over ride system for manual operation & back washing. 5- Chemical sterilization: Two vacuums chlorinaters wall mounted type (one will be stand-by) for dosing chlorine gas. 6- Intermediate pumps: Not less than two pumps (one stand-by) to pump the water the filtration units to the collection tank against static head of 8M in addition to frictionlossesin the filters.The pumps should be end-suction back pull out. The motor should of speed 1450RPM, 3 phase,50HTZ.	2	0	0	2	Set
03-05-04005	Optical Thiodolite complete set with triput suitable for working with Eldi 4 (Electro Optical Distance metert) which has been provided to Dohuk under SCF98/4277, PO No. (CCX 982628) , manufactured by F.W. Breithaupt & Sohn, GmbH & CO.KG. P.O. Box 100 569-D-34121 Kassel-Germany (see attached drawing ANX-DHK-Theodolite)	4	0	0	4	Each
03-05-04006	Spare parts for VOLVO tankers -truck type, N10, engine numbers 14 93 10		0	0	0	
03-05-04007	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04008	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04009	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04010	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04011	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04012	Water Pump 467204-4	1	0	0	1	Each
03-05-04013	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04014	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04015	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04016	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04017	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04018	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04019	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04020	Thermostat 467015-4	3	0	0	3	Each
03-05-04021	Fuel Injection Pump 243440-5	1	0	0	1	Each

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03-05-04022	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04023	Starter Motor 240340-0	1	0	0	1	Each
03-05-04024	Alternator 1505307-7	1	0	0	1	Each
03-05-04025	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04026	Compressor 351453-6	1	0	0	1	Each
03-05-04027	Spare parts for VOLVO tankers -truck type, N10, engine numbers 15 61 11		0	0	0	
03-05-04028	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04029	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04030	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04031	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04032	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04033	Water Pump 467204-4	1	0	0	1	Each
03-05-04034	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04035	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04036	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04037	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04038	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04039	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04040	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04041	Thermostat 467015-4	3	0	0	3	Each
03-05-04042	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04043	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04044	Starter Motor 240340-0	1	0	0	1	Each
03-05-04045	Alternator 1505307-7	1	0	0	1	Each
03-05-04046	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04047	Compressor 351453-6	1	0	0	1	Each
03-05-04048	Spare parts for VOLVO tankers -truck type, N10, engine numbers 14 83 58		0	0	0	
03-05-04049	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04050	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04051	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04052	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04053	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04054	Water Pump 467204-4	1	0	0	1	Each
03-05-04055	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04056	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04057	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04058	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04059	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04060	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04061	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04062	Thermostat 467015-4	3	0	0	3	Each
03-05-04063	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04064	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04065	Starter Motor 240340-0	1	0	0	1	Each
03-05-04066	Alternator 1505307-7	1	0	0	1	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-04067	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04068	Compressor 351453-6	1	0	0	1	Each
03-05-04069	Spare parts for VOLVO tankers -truck type, N10, engine numbers 14 92 33		0	0	0	
03-05-04070	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04071	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04072	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04073	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04074	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04075	Water Pump 467204-4	1	0	0	1	Each
03-05-04076	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04077	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04078	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04079	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04080	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04081	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04082	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04083	Thermostat 467015-4	3	0	0	3	Each
03-05-04084	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04085	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04086	Starter Motor 240340-0	1	0	0	1	Each
03-05-04087	Alternator 1505307-7	1	0	0	1	Each
03-05-04088	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04089	Compressor 351453-6	1	0	0	1	Each
03-05-04090	Spare parts for VOLVO tankers -truck type, N10, engine numbers 15 58 50		0	0	0	
03-05-04091	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04092	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04093	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04094	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04095	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04096	Water Pump 467204-4	1	0	0	1	Each
03-05-04097	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04098	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04099	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04100	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04101	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04102	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04103	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04104	Thermostat 467015-4	3	0	0	3	Each
03-05-04105	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04106	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04107	Starter Motor 240340-0	1	0	0	1	Each
03-05-04108	Alternator 1505307-7	1	0	0	1	Each
03-05-04109	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04110	Compressor 351453-6	1	0	0	1	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-04111	Spare parts for VOLVO tankers -truck type, N10, engine numbers 15 58 47		0	0	0	
03-05-04112	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04113	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04114	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04115	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04116	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04117	Water Pump 467204-4	1	0	0	1	Each
03-05-04118	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04119	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04120	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04121	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04122	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04123	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04124	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04125	Thermostat 467015-4	3	0	0	3	Each
03-05-04126	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04127	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04128	Starter Motor 240340-0	1	0	0	1	Each
03-05-04129	Alternator 1505307-7	1	0	0	1	Each
03-05-04130	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04131	Compressor 351453-6	1	0	0	1	Each
03-05-04132	Spare parts for VOLVO tankers -truck type, N10, engine numbers 14 56 71		0	0	0	
03-05-04133	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04134	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04135	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04136	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04137	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04138	Water Pump 467204-4	1	0	0	1	Each
03-05-04139	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04140	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04141	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04142	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04143	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04144	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04145	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04146	Thermostat 467015-4	3	0	0	3	Each
03-05-04147	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04148	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04149	Starter Motor 240340-0	1	0	0	1	Each
03-05-04150	Alternator 1505307-7	1	0	0	1	Each
03-05-04151	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04152	Compressor 351453-6	1	0	0	1	Each
03-05-04153	Spare parts for VOLVO tankers -truck type, N10, engine numbers 14 97 82		0	0	0	
03-05-04154	Fuel Feed Pump 240072-9	1	0	0	1	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-04155	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04156	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04157	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04158	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04159	Water Pump 467204-4	1	0	0	1	Each
03-05-04160	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04161	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04162	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04163	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04164	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04165	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04166	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04167	Thermostat 467015-4	3	0	0	3	Each
03-05-04168	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04169	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04170	Starter Motor 240340-0	1	0	0	1	Each
03-05-04171	Alternator 1505307-7	1	0	0	1	Each
03-05-04172	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04173	Compressor 351453-6	1	0	0	1	Each
03-05-04174	Spare parts for VOLVO tankers -truck type, N10, engine numbers 14 71 87		0	0	0	
03-05-04175	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04176	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04177	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04178	Gasket Kit 275531-2	2	0	0	2	Set
03-05-04179	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04180	Water Pump 467204-4	1	0	0	1	Each
03-05-04181	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04182	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04183	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04184	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04185	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04186	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04187	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04188	Thermostat 467015-4	3	0	0	3	Each
03-05-04189	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04190	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04191	Starter Motor 240340-0	1	0	0	1	Each
03-05-04192	Alternator 1505307-7	1	0	0	1	Each
03-05-04193	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04194	Compressor 351453-6	1	0	0	1	Each
03-05-04195	Spare parts for VOLVO tankers -truck type, N10, engine numbers 15 68 75		0	0	0	
03-05-04196	Fuel Feed Pump 240072-9	1	0	0	1	Each
03-05-04197	Ring Set Size STD 275304	3	0	0	3	Set
03-05-04198	Piston Set Size STD 275035	3	0	0	3	Set
03-05-04199	Gasket Kit 275531-2	2	0	0	2	Set

<b>CODE</b>	<b>DESCRIPTION</b>	<b>Doh</b>	<b>Erbil</b>	<b>Sul</b>	<b>QTY</b>	<b>Unit</b>
03-05-04200	Cylinder Liner Kit 275036-2	6	0	0	6	Each
03-05-04201	Water Pump 467204-4	1	0	0	1	Each
03-05-04202	Oil Pump Kit 275570-0	1	0	0	1	Each
03-05-04203	Main Bearing Kit 270438-5	6	0	0	6	Each
03-05-04204	Thrust Washer Kit 276758-0	4	0	0	4	Each
03-05-04205	Water Pump Kit 275608-8	1	0	0	1	Each
03-05-04206	Clutch Servo Repair Kit 273447-3	1	0	0	1	Each
03-05-04207	Master Cylinder Repair Kit 273660-1	1	0	0	1	Each
03-05-04208	Compressor Repair Kit 272665-1	1	0	0	1	Set
03-05-04209	Thermostat 467015-4	3	0	0	3	Each
03-05-04210	Fuel Injection Pump 243440-5	1	0	0	1	Each
03-05-04211	Turbo Charger 467369-5	1	0	0	1	Each
03-05-04212	Starter Motor 240340-0	1	0	0	1	Each
03-05-04213	Alternator 1505307-7	1	0	0	1	Each
03-05-04214	Clutch Disk 267236-8	1	0	0	1	Each
03-05-04215	Compressor 351453-6	1	0	0	1	Each

## Project 2: Urban and semi-urban water supplies / Water pumps and associated equipment / Submersible pumps and specials

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-05001	UNICEF COMMODITY CODE: 432287 SUBMERSIBLE PUMP WITH DIRECT COUPLED ELECTRICAL MOTOR AND WITH NON-RETURN VALVE, CONTROL PANEL, 150 M THREE CORE CABLE AND CABLE TERMINATION KIT. Q = 10 CUM/HR (MIN), HEAD = 210 M (MAX), (SP 16-24), 380 V, 50 HZ, 3 PH FOR 6.0 INCHES CASED BOREWELL. TO BE INSTALLED ON NEW BOREWELLS. ALL CABLES TO BE PACKED SEPRATELY WITH EACH PUMP	0	0	2	2	Set
03-05-05002	UNICEF COMMODITY CODE: 432287 SAME AS ITEM NO.1, Q=14CUM/HR (MIN), HEAD=185M (MAX), (SP 27-19).	0	0	2	2	Set
03-05-05003	UNICEF COMMODITY CODE: 432287 SAME AS ITEM NO.1, Q=14CUM/HR (MIN), HEAD=270M (MAX), (SP 27-24).	0	0	1	1	Set
03-05-05004	UNICEF COMMODITY CODE: 432287 SAME AS ITEM NO.1, Q=22CUM/HR (MIN), HEAD=120 M (MAX), (SP 45-12).	0	0	1	1	Set
03-05-05005	UNICEF COMMODITY CODE: 432287 SAME AS ITEM NO.1, Q=16CUM/HR (MIN), HEAD=280 M (MAX), (SP 25-30).	0	0	1	1	Set
03-05-05006	UNICEF COMMODITY CODE: 432287 SAME AS ITEM NO.1, Q=50 CUM/HR (MIN), HEAD=135 M (MAX), (SP 77-10).	0	0	1	1	Set
03-05-05007	UNICEF COMMODITY CODE: 432287 SAME AS ITEM NO.1, Q=22 CUM/HR (MIN), HEAD=210 M (MAX), (SP 46-15).	0	0	1	1	Set
03-05-05008	LOW-LIFT SUBMERSIBLE DRAINAGE PUMP FOR RAW WATER WITH DIRECT COUPLED ELECTRICAL MOTOR 400V, 50HZ, 3 PHASE WITH COMPLETE CONTROL PANNELS AND 30 METER 3 CORE CABLE Q=100 CUBIC METER / HOUR AND HEAD=35 METER. WITH O&M MANUAL AND SPARE PARTS CATALOGUE. PACKED SUITABLE FOR LAND AND SEA TRANSPORTATION.	0	2	0	2	Set

Project 2: Urban and semi-urban water supplies / Water pumps and associated equipment / Vertical turbine pumps

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-06001	Deepwell turbine pump capacity Q=14cum/hr(min), head=160M (max), preferably BP27-16 type from Grundfos. Complete with bowl assembly, pump head and discharge flange with 3 inch BSP thread, electric motor 3x380/660V, 50Hz(RPM 2900), with housing guard direct coupled with pump head, top column pipe 3 inch length 0.485M threaded with 8 threads per inch, complete with 3/4 inch line shaft, mechanical shaft seal and coupling, intermediate column pipe 3 inch line shaft, column bearing and liner, suction pipe 3 inch, length 1.64M with 3 inch spring loaded foot-valve with strainer 50M cable 4x6MM2 and 4 PCS cable gland, spare parts for two years operatoin, O&M manual in English with appropriate packings.	0	0	2	2	Set
03-05-06002	Same as item (1), Q=22cum/hr (min), H=165m (max), (BP 45-16)	0	5	3	8	Set
03-05-06003	Same as item (1), Q=14cum/hr (min), H=95m (max), (BP 27-10)	0	1	3	4	Set
03-05-06004	Same as item (1), Q=22cum/hr (min), H=155m (max), (BP 45-12)	0	0	3	3	Set
03-05-06005	UNICEF Commodity Code: 43 22 53 Deep well turbine pumping system, diesel driven flow rate: 10 cum/hr, head 120 , RPM 2900, maximum installation depth 100 meters, operating temperature -15 degrees celsius in winter + 50 degrees celsius in Summer. Altitude 1200 meters, relative hummidity less than 90% description for high altitude/temperatures must be taken in to consideration.	0	0	10	10	Each
03-05-06006	Same as item 2 but capacity Q= 30 cum/hr and H= 120m.	0	0	10	10	Each
03-05-06007	Diesel engine for operating vertical turbine pump, capacity 45 HP, complete set with clutch, 50 degrees Celcius max; and 1,200m max altitude	0	10	0	10	Set

## Project 2: Urban and semi-urban water supplies / Water pumps and associated equipment / Booster pumps

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-07001	High pressure two -stage horizontal split case centrifugal booster pump type 12UZDL-25A from Ingersol Dresser Pump (IDP) for pumping treated water Q= 1500m <sup>3</sup> /hr, H=200m, coupled with electrical driven motor through a flexible coupling. Casing should be of steel , impellers & shaft should be made of stainless steel. Thermal sensor should be provided for monitoring bearing temperature. Motor should be squirrel cage, 1500 RPM, 3300 V, 50HZ, 3 phase with thermal sensors for controlling the temperature of windings. The following should be attached with each set	1	0	0	1	Set
03-05-07002	Accessories for the suction pipe, large elbow 90 degree with flange	1			1	Each
03-05-07003	Steel spiral welded pipe for section pipe, to be connected with header line	15			15	M
03-05-07004	Flanged reducer	1			1	Each
03-05-07005	Gate valve, electrical & manual operated	1			1	Each
03-05-07006	Adapter to main suction header	1			1	Each
03-05-07007	Flexible coupling (expansion joint)	1			1	Each
03-05-07008	Accessories for the discharged line, large elbow 90 degree with flange	1			1	Each
03-05-07009	Steel spiral welded pipe for discharge pipe, to be connected with header line.	15			15	M
03-05-07010	Flanged reducer	1			1	Each
03-05-07011	Non return valve	1			1	Each
03-05-07012	Gate valve, electrical & manual operated	1			1	Each
03-05-07013	Adapter to main discharge header	1			1	Each
03-05-07014	Flexible coupling (expansion joint)	1			1	Each
03-05-07015	Electrical cable high tension, 3.3 KV suitable for operating the above pump	70			70	M
03-05-07016	Control Cable to be provided in sufficient length & suitable for operating the above pump	150			150	M
03-05-07017	Power panel to be provided with circuit breaker 3.3 KV with control panel	1			1	Each
03-05-07018	Spare Parts for two years operation					LS
03-05-07019	Provision of technical documents in English including operation & maintenance manual & spare parts catalogue					LS
03-05-07020	Engineering Design of the concrete foundation with drawings.					LS
03-05-07021	Supervision installation process & provide on site training					LS

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-07022	High pressure two-stage horizontal split case centrifugal pump booster pump type 12UZDL-25A from Ingersol Dresser Pump (IDP) for pumping treated water Q= 1500m <sup>3</sup> /hr, H=165m, coupled with electrical driven motor through a flexible coupling. Casing should be of steel, impellers & shaft should be made of stainless steel. Thermalsensor should be provided for monitoring bearing temperature. Motor should be squirrel cage, 1500 RPM, 3300 V, 50HZ, 3 phase with thermal sensors for controlling the temperature of windings. The following should be attached with each set	1			1	Set
03-05-07023	Accessories for the suction pipe, large elbow 90 degree with flange	1			1	Each
03-05-07024	Steel spiral welded pipe for suction pipe, to be connected with header line	15			15	M
03-05-07025	Flanged reducer	1			1	Each
03-05-07026	Gate valve, electrical & manual operated	1			1	Each
03-05-07027	Adapter to main suction header	1			1	Each
03-05-07028	Flexible coupling (expansion joint)	1			1	Each
03-05-07029	Accessories for the discharged line, large elbow 90 degree with flange	1			1	Each
03-05-07030	Steel spiral welded pipe for discharge pipe, to be connected with header line.	15			15	M
03-05-07031	Flanged reducer	1			1	Each
03-05-07032	Non return valve	1			1	Each
03-05-07033	Gate valve, electrical & manual operated	1			1	Each
03-05-07034	Adapter to main discharge header	1			1	Each
03-05-07035	Flexible coupling (expansion joint)	1			1	Each
03-05-07036	Electrical cable high tension, 3.3 K suitable for operating the pump	70			70	M
03-05-07037	Control cable to be provided in sufficient length & suitable for operating the above pump	150			150	M
03-05-07038	Power panel to be provided with circuit breaker 3.3 KV with control panel	1			1	Each
03-05-07039	Spare parts for two years operation					LS
03-05-07040	Provision of technical documents in English including operation & maintenance Manual & spare part catalogue					LS
03-05-07041	Engineering Design of the concrete foundation with drawings					LS
03-05-07042	Supervision the installation process & provide on site training					LS
03-05-07043	Centrifugal booster pump for pumping treated water. Q=100 cum/hr, H=100m Coupled with electrical driven motor with soft starter and automatic circuit breaker connection and with control panel. 380V, 50Hz, 3 phases, max altitude 1,000m and necessary valves, non-return valves, flanges, elbows, reducers FOR NEW INSTALLATION CABLES TO BE PACKED SEPRATELY WITH A SET.	0	4	0	4	Set

<b>CODE</b>	<b>DESCRIPTION</b>	<b>Doh</b>	<b>Erbil</b>	<b>Sul</b>	<b>QTY</b>	<b>Unit</b>
03-05-07044	Same as item 3 but: Q=100 cum/hr, H=60m	0	2	0	2	Set
03-05-07045	Same as item 3 but: Q=68 cum/hr, H=348m	0	2	0	2	Set
03-05-07046	Same as item 3 but: Q=60 cum/hr, H=60m	0	2	0	2	Set
03-05-07047	Same as item 3 but: Q=50 cum/hr, H=80m	0	2	0	2	Set
03-05-07048	Same as item 3 but: Q=100 cum/hr, H=80m	0	1	0	1	Set
03-05-07049	Star-Delta electrical motor with control panel for booster pump P=185KW at 2960 RPM V=400V, 50HZ, 3P, mounting position: 1 M 1001 (1M B3), IP23/IC01.	0	1	0	1	Set
03-05-07050	Star-Delta electrical motor with control panel for high lift pump P=320 KW at 1450 RPM V=400V, 50HZ, 3P, mounting position: 1 M 1001 (1M B3), IP23/IC01.	0	1	0	1	Set

## Project 2: Urban and semi-urban water supplies / Water pumps and associated equipment / Electrical equipment

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-08001	Control panel for submersible motor with main switch, circuit breaker, illuminated selector switch, contactor, phase failure relay, timing relay, overload relay, fuse holder, autotransformer, ammeter and voltmeter, 380V, 50Hz, 3Ph. in addition to that single phase to neutral (220 V, 50Hz) must also be available for the control panel components such as ammeter, voltmeter, etc. Capacity 22 Kw, 45 Amp	0	2	0	2	Each
03-05-08002	Same as item 1 but capacity 37 Kw, 72 Amp	0	2	0	2	Each
03-05-08003	Automatic air-circuit breaker, MCCB, 500V, 50Hz & 3P. Capacity 630 amps	0	10	0	10	Each
03-05-08004	Same as item 2 but capacity 400-500	0	3	0	3	Each
03-05-08005	Same as item 2 but capacity 250 amps	0	3	0	3	Each
03-05-08006	Same as item 2 but capacity 50-63 amps	0	3	0	3	Each
03-05-08007	Same as item 2 but capacity 30-40 amps	0	3	0	3	Each
03-05-08008	Electric contactors, 500V, 50 Hz, coil voltage 380V, SIEMENS Germany, type 3TF 54	0	8	0	8	Each
03-05-08009	Same as item (3), type 3TF 56	0	6	0	6	Each
03-05-08010	Phase failure, three phase asymmetry and sequence relay, 380 V, 50 Hz. E. Dold u. Sohne KG Type BA 9041	0	200	0	200	Set
03-05-08011	UNICEF commodity code 461200 Electrical Transformer according to IEC 76 standard, 1000 KVA, 11/0.4 kV oil Impressed distribution transformer furnished with conservator and off-load tap changer, including the following accessories: Dial type thermometer with two contacts, wheels silica gel breather magnetic oil level gauge.	0	3	0	3	Set
03-05-08012	Same as item No. 5 but: 1250 KVA	0	2	0	2	Set
03-05-08013	Same as item No.5 but: 33/ 0.4 kV 500 KVA	0	1	0	1	Set
03-05-08014	UNICEF commodity code 461200 Set of link fuses and link fuse switch for above transformer 1000 KVA	0	3	0	3	Set
03-05-08015	Set of link fuses and link fuse switch for above transformer 1250 KVA	0	2	0	2	Set
03-05-08016	Set of link fuses and link fuse switch for above transformer 33/0.4 kV 500 KVA	0	1	0	1	Set
03-05-08017	Oil for H.T Transformer	0	1000	0	1000	Liter

## Project 2: Urban and semi-urban water supplies / Water pumps and associated equipment / Generators

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-09001	Diesel generator complete set with control panel board consisting of automatic main failure switch, change-over switch, voltmeter, ammeter, hour meter, phase selector switch, frequency meter, starting key, high temperature warning, low oil pressure warning, low fuel warning and with 12 V electric starting system with battery, battery charger and voltage regulator, and with fresh waterloop cooling system, heavy duty air filter, cartridge oil and fuel filter, speed governor, silencer, exhaust flexible piping and with fuel tank to run 8 hours continuously and suitable for continuous operation. Maximum output power 1000 KVA, 400V, 3Ph and 50Hz. 50 deg C max; and 1,200 m max alt. The engine and alternator coupled by elastic joint and mounted on a common bed-frame with anti-vibration mountings and lifting eyes with complete tool-kit set. Supplies with O&M manual and spare parts catalogue in English. With spare parts for 2 years normal operation. Packed in wooden case suitable for sea and land transportation.	0	2	2	4	Set
03-05-09002	Same as item 1, capacity 500 KVA.	0	1	4	5	Set
03-05-09003	Same as item 1, capacity 400 KVA.	0	0	4	4	Set
03-05-09004	Same as item 1, capacity 130 KVA.	0	0	6	6	Set
03-05-09005	Same as item No.1 Generator capacity 100 KVA.(To be from Genelec Groupes Electrogenes Generating Sets (France Co.)	8	49	25	82	Set
03-05-09006	Same as item 1, capacity 1250 KVA.(from same above company).	1	0	0	1	Set
03-05-09007	UNICEF commodity code 461132, generator capacity 50 KVA.(From same above company).	3	0	0	3	Set
03-05-09008	Electronic Control Unit type TE802-AT92B, supplied voltage is 12 Vcc, Operating field is 6.5-16.5 Volt for control the running of generators manufactured by Genelec Groupes Electrogenes Generating sets (France Company), provided under SCF98-4001, PO NO. (CCX 981770).	4	0	0	4	Set
03-05-09009	Same as item no. 8 supplied voltage is 24Vcc, Operating field is 12-33 Volt.	4	0	0	4	Set

## Project 4: Rural water supplies and sanitation / Pipes and specials

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-13001	UNICEF COMMODITY CODE: 412713 GI PIPE FOR DRINKING WATER SUPPLY, TO BE OF MILD STEEL, MEDIUM SERIES, STANDARD, LONGITUDINALLY WELDED, (HIGH INDUCTION FREQUENCY WELDING), HOT DIPPED GALVANIZED AND PASSIVATED. EACH PIPE TO BE HYDRO TESTED OR TESTED AS PER CURRENT METHOD. TO BE MANUFACTURED AS PER ISO 65-1981. BOTH ENDS MALE THREADED ISO 7, SOCKED ONE END (FEMALE THREADED SOCKET), DULY GALVANIZED AND CHAMFERED, AND THE OTHER END PROTECTED WITH A HDPE THREADED PROTECTOR, COVERING ENTIRE THREAD OF PIPE, MALE THREADS TO BE PROTECTED WITH ANTI-RUST ZINC ALUMINUM PASTE, SOCKET THREADS TO BE PROTECTED WITH ANTI-RUST VARNISH. PIPE/SOCKET TO ADEQUATELY ZINC COATED TO SATISFY COPPER SULFATE TEST AS PRESCRIBED IN APPENDIX A OF BS 1387 / 67 OR EQUIVALENT ISO STANDARD. STEEL, ZINC, ANTI-RUST PASTE AND VARNISH TO BE MADE FROM FOOD GRADE MATERIAL. PIPE LENGTH (EXCLUDING SOCKET LENGTH): 5.8 METERS. PN 25, NOMINAL DIAMETER: ND 4.0 INCH.	250	3000	4000	7250	Each
03-05-13002	UNICEF COMMODITY CODE: 412713 AS ITEM 1, BUT ND 3.0 INCH	200	2000	4000	6200	Each
03-05-13003	UNICEF COMMODITY CODE: 412713 AS ITEM 1, BUT ND 2.5 INCH	300	0	4000	4300	Each
03-05-13004	UNICEF COMMODITY CODE: 412713 AS ITEM 1, BUT ND 2.0 INCH	200	0	4000	4200	Each
03-05-13005	UNICEF COMMODITY CODE: 412713 AS ITEM 1, BUT ND 1.5 INCH	400	0	4,000	4400	Each
03-05-13006	UNICEF COMMODITY CODE: 412713 AS ITEM 1, BUT ND 1.0 INCH	150	0	2000	2150	Each
03-05-13007	UNICEF COMMODITY CODE: 412713 AS ITEM 1, BUT ND 0.75 INCH	100	0	2000	2100	Each
03-05-13008	UNICEF COMMODITY CODE: 432417 BRASS GATE VALVE SET WITH HAND WHEEL, CLOCKWISE CLOSING. FOOD QUALITY, FXF. PN 20. ND 0.75 INCH	0	0	0	0	Each
03-05-13009	UNICEF COMMODITY CODE: 432417 AS ITEM 8 BUT SIZE 1.0 INCH.	75	0	0	75	Each
03-05-13010	UNICEF COMMODITY CODE: 432417 AS ITEM 8 BUT SIZE 2.5 INCH.	100	0	0	100	Each
03-05-13011	UNICEF COMMODITY CODE: 432417 AS ITEM 8 BUT SIZE 3.0 INCH. PN 16.	90	0	0	90	Each
03-05-13012	UNICEF COMMODITY CODE: 432417 AS ITEM 8 BUT SIZE 4.0 INCH.	90	0	0	90	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-13013	UNICEF COMMODITY CODE: 412837 MALLEABLE CAST IRON, HOT DIP GALVANIZED EQUAL ELBOWS, 90 DEGREES, FOR DRINKING WATER SUPPLY CONFORMING TO ISO R49 AND THREADED TO BS21 (ISO R7), FXF, .PN 25. SIZE 0.75 INCH.	850	0	0	850	Each
03-05-13014	UNICEF COMMODITY CODE: 412837 AS ITEM 13 BUT SIZE 2.5 INCH.	150	0	0	150	Each
03-05-13015	UNICEF COMMODITY CODE: 412837 AS ITEM 13 BUT SIZE 3.0 INCH.	100	0	0	100	Each
03-05-13016	UNICEF COMMODITY CODE: 412837 AS ITEM 13 BUT SIZE 4.0 INCH.	180	0	0	180	Each
03-05-13017	UNICEF COMMODITY CODE: 412837 MALLEABLE CAST IRON, HOT DIP GALVANIZED EQUAL T-JOINTS FOR DRINKING WATER SUPPLY CONFORMING TO ISO R49 AND THREADED TO BS21 (ISO R7), FXFXF. PN 25. SIZE 0.75 INCH.	0	0	0	0	Each
03-05-13018	UNICEF COMMODITY CODE: 412837. AS IN ITEM 17 BUT SIZE 1.5 INCH.	200	0	0	200	Each
03-05-13019	UNICEF COMMODITY CODE: 412837. AS IN ITEM 17 BUT SIZE 3.0 INCH.	150	0	0	150	Each
03-05-13020	UNICEF COMMODITY CODE: 412837. AS IN ITEM 17 BUT SIZE 4.0 INCH.	200	0	0	200	Each
03-05-13021	UNICEF COMMODITY CODE: 412837 MALLEABLE CAST IRON, HOT DIP GALVANIZED EQUAL UNIONS FOR DRINKING WATER SUPPLY CONFORMING TO ISO R49 AND THREADED TO BS21 (ISO R7), FXF. PN 25. SIZE 0.75 INCH.	100	0	0	100	Each
03-05-13022	UNICEF COMMODITY CODE: 412837. AS IN ITEM 21 BUT SIZE 1.0 INCH.	200	0	0	200	Each
03-05-13023	UNICEF COMMODITY CODE: 412837. AS IN ITEM 21 BUT SIZE 1.5 INCH.	100	0	0	100	Each
03-05-13024	UNICEF COMMODITY CODE: 412837. AS IN ITEM 21 BUT SIZE 2.0 INCH.	90	0	0	90	Each
03-05-13025	UNICEF COMMODITY CODE: 412837. AS IN ITEM 21 BUT SIZE 2.5 INCH.	100	0	0	100	Each
03-05-13026	UNICEF COMMODITY CODE: 412837. AS IN ITEM 21 BUT SIZE 3.0 INCH.	50	0	0	50	Each
03-05-13027	UNICEF COMMODITY CODE: 412835. AS IN ITEM 21 BUT SIZE 4.0 INCH.	150	0	0	150	Each
03-05-13028	UNICEF COMMODITY CODE: 412835. MALLEABLE CAST IRON, HOT DIP GALVANIZED EQUAL NIPPLES (HEXAGONAL OR PARALLEL) FOR DRINKING WATER SUPPLY CONFORMING TO ISO R49 AND THREADED TO BS21 (ISO R7), MXM. PN 25. SIZE 1.5 INCH.	350	0	0	350	Each

<b>CODE</b>	<b>DESCRIPTION</b>	<b>Doh</b>	<b>Erbil</b>	<b>Sul</b>	<b>QTY</b>	<b>Unit</b>
03-05-13029	UNICEF COMMODITY CODE: 412837. MALLEABLE CAST IRON, HOT DIP GALVANIZED REDUCER JOINTS FOR DRINKING WATER SUPPLY CONFORMING TO ISO R49 AND THREADED TO BS21 (ISO R7), FXF. PN 25. SIZE 2.5 X 2.0 INCH.	150	0	0	150	Each
03-05-13030	UNICEF COMMODITY CODE: 412837. AS IN ITEM 29 BUT SIZE 2.5 X 1.5 INCH.	400	0	0	400	Each
03-05-13031	UNICEF COMMODITY CODE: 412837. AS IN ITEM 29 BUT SIZE 2.5 X 1.0 INCH.	200	0	0	200	Each
03-05-13032	UNICEF COMMODITY CODE: 412837. AS IN ITEM 29 BUT SIZE 2.5 X 0.75 INCH	200	0	0	200	Each
03-05-13033	UNICEF COMMODITY CODE: 412837. AS IN ITEM 29 BUT SIZE 2.0 X 1.5 INCH.	75	0	0	75	Each
03-05-13034	UNICEF COMMODITY CODE: 412837. AS IN ITEM 29 BUT SIZE 2.0 X 0.75 INCH.	50	0	0	50	Each
03-05-13035	UNICEF COMMODITY CODE: 412837. AS IN ITEM 29 BUT SIZE 1.5 X 0.75 INCH.	100	0	0	100	Each

## Project 4: Rural water supplies and sanitation / Construction and sanitary materials

<b>CODE</b>	<b>DESCRIPTION</b>	<b>Doh</b>	<b>Erbil</b>	<b>Sul</b>	<b>QTY</b>	<b>Unit</b>
03-05-14001	Ordinary Portland cement packed in 5-ply 50 kg paper bags (equivalent to BS12).	0	0	1000	1000	Ton
03-05-14002	UNICEF Commodity Code: 412522 Mild steel deformed reinforcing bars in 6 meter length (+/- 100 mm), commercial grade tensile strength: 42.5-53.5 Kg/mm <sup>2</sup> in bundles of 1 MT. size: Dia 10 mm : average weight 0.617 Kg/m, Item No. 1874	0	0	20	20	Ton
03-05-14003	Concrete hollow blocks of size 20x20x40 cm (to be procured locally). For Dohuk blocks should be solid and of size 15x20x40.	0	0	350	350	1000 Each

## Project 4: Rural water supplies and sanitation / Pumps and spare parts

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-15001	UNICEF COMMODITY CODE: 432287 SUBMERSIBLE PUMP TYPE SP8A-44, INCL. 6" MOTOR, DISCHARGE 3" BSP, Q= 4 - 11 CUM/HR AND HEAD = 220 - 102 M (MIN). FOR 8 INCH CASED BOREWELL. CABLE TO BE SUPPLIED SEPERATELY FOR EACH PUMP AND TO BE INSTALLED ON NEW BOREWELL, ITEM NO.1229	1			1	Set
03-05-15002	UNICEF COMMODITY CODE: 432253 DEEP WELL TURBINE PUMPING SYSTEM, OPERATING AT 2,700 RPM FOR PUMPING CLEAN WATER TO FIT IN A 8 INCH BORE WELL, Q=10 CUM/HR AND HEAD = 120 M AT 1,200 METRES ALTITUDE/ELEVATION, 50 DEG CENTIGRADE COMPLETE SET WITH PUMP HEAD, DISCHARGE FLANGE, RIGHT ANGLE GEAR DRIVE CONNECTED TO ENGINE BY UNIVERSAL SHAFT. AIR OR WATER COOLED DIESEL ENGINE, TYPEDEUTZ DIETER UNIT WITH INDUSTRIAL CLUTCH, ELECTRIC STARTER, HEAVY DUTY OIL BATH, AIR CLEANER, SPEED GOVERNOR, SILENCER EXHAUST PIPE, MOUNTED FUEL TANK, WITH COLUMN PIPES AND LINE SHAFTS, FOOT VALVE WITH STRAINER, WATER LEVEL INDICATOR, TOOL-KIT, SPARE PARTS FOR 2 YEARS OPERATION, O&M MANUAL IN ENGLISH AND SPARE PARTS CATALOGUE WITH APPROPRIATE SEAWORTHY PACKING. PLEASE NOTE THAT TEMPERATURES IN SUMMER EXCEEDS 50 DEGREE CELSIUS AND REACHES -15 DEGREE CELSIUS IN WINTER, GRUNDFOS DK, A/S, DENMARK.	2	20	30	52	Set
03-05-15003	SAME AS ITEM 2 BUT Q = 8 CUM/HR, H= 140 M	2	0	10	12	Set
03-05-15004	UNICEF COMMODITY CODE: 461132 AIR-COOLED DIESEL ENGINE TO DRIVE A VERTICAL TURBINE PUMP THROUGH A RIGHT ANGLE GEAR. INCLUDING CARDAN SHAFTS. WITH CENTRIFUGAL CLUTCH, ELECTRIC STARTER, HEAVY DUTY OIL BATH, AIR CLEANER, SPEED GOVERNOR, SILENCER EXHAUST PIPE, MOUNTED FUEL TANK. MAX ALTITUDE 1,200M. TWO YEARS SPARE PARTS. PLEASE NOTE THAT TEMPERATURES IN SUMMER EXCEEDS 50 DEGREE CELSIUS AND REACHES -15 DEGREE CELSIUS IN WINTER	0	10		10	Set
03-05-15005	UNICEF COMMODITY CODE: 432225 DEEP WELL INDIA MARK III HAND PUMP	0	0	100	100	Set
03-05-15006	UNICEF COMMODITY CODE: 432225 CONNECTION ROD FOR INDIA MARK III	0	0	600	600	Set
03-05-15007	UNICEF COMMODITY CODE: 432225 FAST MOVING SPARE PARTS FOR INDIA MARK III	0	0	100	100	Each
03-05-15008	UNICEF COMMODITY CODE: 432225 MECHANICAL VLOM TOOLS KIT FOR INDIA MARK III	0	0	5	5	Set

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-15009	UNICEF COMMODITY CODE: SLOW MOVING SPARES FOR INDIA MARK III	0	0	2	2	Set
03-05-15010	UNICEF COMMODITY CODE: PUMP MULTISTAGE HEAD, COMPLETE SET FOR GRUNDFOS PUMP TYPES CONSISTING OF PUMP HEAD, FOR BP 16-12 (2.5 INCH DISCHARGE)	0	10	0	10	Set
03-05-15011	UNICEF COMMODITY CODE: AS IN ITEM 10 BUT FOR BP27-12 (3 INCH DISCHARGE)	0	10	0	10	Set
03-05-15012	UNICEF COMMODITY CODE: 000 58 19 SHALLOW WELL SUCTION TYPE HAND PUNMP (TARA MODEL), COMPLETE DIRECT-ACTION HAND-PUMP, TARA MODEL, SUPPLIED WITH 15 METERS OF RISEER MAINS AND CONNECTING RODS, AND FAST MOVING SPARE PARTS FOR 2 YEARS OPERATION WITH A SET OF SLOW MOVING SPARE PARTS.	0	50	0	50	Set
03-05-15013	UNICEF COMMODITY CODE: 432254 DEEPWELL TURBINE PUMP COMPLETE WITH BODY(BOWLS AND IMPELLERS), DISCHARGE COLOUM(COLOUM PIPE ELEMENTS AND LINESHAFT), DRIVEHEAD (ELECTRIC MOTOR), CAPACITY Q=15 CUM/HR(MAX), HEAD=124 M (MIN), PREFERABLY BP16-14 TYPE FROM GRUNDFOS. COMPLETE WITH BOWL ASSEMBLY, PUMP HEAD AND DISCHARGE FLANGE WITH 2.5 INCH BSP THREAD, ELECTRIC MOTOR 3X380/660V, 50HZ, (RPM 2900) WITH HOUSING GUARD DIRECT COUPLED WITH PUMP HEAD, TOP COLUMN PIPE 3 INCH LENGTH 0.485M THREADED WITH 8 THREADS PER INCH, COMPLETE WITH 3/4 INCH LINE SHAFT, MECHANICAL SHAFT SEAL AND COUPLING, INTERMEDIATE COLUMN PIPE 3 INCH LINE SHAFT, COLUMN BEARING AND LINER, SUCTION PIPE 3 INCH, LENGTH 1.64M WITH 3 INCH SPRING LOADED FOOT-VALVE WITH STRAINER 50M CABLE 4X6MM2 AND 4 PCS CABLE GLAND, SPARE PARTS FOR TWO YEARS OPERATOIN, O&M MANUAL IN ENGLISH WITH APPROPRIATE PACKINGS, ITEM NO.1113	1			1	Set
03-05-15014	HORIZONTAL ELECTRICAL MOTOR FOR VERTICAL TURBINE PUMPS , 400 V , 50 HZ, 3 P AND 1470 RPM : CAPACITY : 15 KW	1			1	Set
03-05-15015	SAME AS ITEM NO. 14, CAPACITY 22 KW	1			1	Set
03-05-15016	SAME AS ITEM NO. 14, CAPACITY 30 KW	1			1	Set

## Project 4: Rural water supplies and sanitation / Materials for deep well drilling

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-16001	UNICEF Commodity Code: 412713 Casing pipe, mild steel, commercial grade st-37 as per DIN 17100, food grade, for lining of water borehole One end male threaded, heavy duty female socket on the other end , To be produced according to DIN 4922 in lengths of 6 m, outer diameter 8 5/8 inch, Item No.507	0	555	400	955	Each
03-05-16002	UNICEF Commodity Code: 412713 As in item 1 but pipe with slots of 2.3 mm width, length of 6 m, outer diameter 8 5/8 inch	20	275	100	395	Each
03-05-16003	UNICEF Commodity Code: 432512 As in item 1 but outer diameter 6 5/8 inch, Item No. 345	30	280	225	535	Each
03-05-16004	UNICEF Commodity Code: 432512 As in item 1 but outer diameter 6 5/8 inch.	30	140	50	220	Each
03-05-16005	UNICEF Commodity Code: 432512 As in item 1 but outer diameter 12 5/8 inch.	0	50	0	50	Each
03-05-16006	UNICEF Commodity Code: 444139 Atlas COPCO well drilling rig AQUA Drill 2500 mounted on truck NL 106 x 4 with mud pump type Gardiner Denver 7 1/2 inch X 10 inch driven by 4/71 detroit diesel engine , compressor, drilling tools and spare parts for two years of operation. With O&M manuals and spare parts catalogue in Arabic/English (same specifications as requested for DRD Erbil SCF 98/4056).	1	0	0	1	Set
03-05-16007	UNICEF Commodity Code: 444141 Bentinite according to API specifications, Item No.271	20	30	30	80	Ton
03-05-16008	UNICEF Commodity Code: 444140 Drag Bits for Rotary drilling 4 BLADE design , tunsten carbide drag bits with 6 5/8" A.P.I REG pin connection , 4 No. 97/8" DIA , 6 No. 12 1/4" DIA. & 13 3/4 " DIA, Item No. 267.	1	0	1	2	Each

## Project 4: Rural water supplies and sanitation / Other materials

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-17001	UNICEF Commodity Code: 491792 Hino water tank truck model code: FF3HJSA LHD Specification No. T1/FF0134. 4X2 Forward Control Body No. SS/LH4989 All steel bonnet Type safety cab, with full floating cab suspension, safety Glass, colour white, engine: Hino Ho7 D, diesel vertical 6 cylinder in line, overhead valve, water cooled direct injection type, Max output 141 KW(190HP) at 2900 RPM, TRANSMISSION 6 speed direct drive, synchromesh 2nd-6th-clutch: Dry single plate with damper spring, Hydraulic control steering, circulating ball - wheel and tyre bolt stud wheels(JIS-Type), 9.00-20-14Pr-Fuel tank: 1151 tank volume 10,000 liters, Thickness of shell, end plate and buffer plate: 3.2 MM Tank construction, Ellipse sectional cylindrical tank with one component. Tank with a manhole hatch with an air breather pump: Centrifugal pump, 600 liter/min at 2500 rpm, accessories: section and delivery hoses 63.5 mmX3m. 2 each hose packing (spare), 4 each strainer for hose and hose wrench. Materials thickness: 3.2 mm for shell, end	1	4	21	26	Set
03-05-17002	UNICEF Commodity Code: 482628 Optical theodolite suitable for working with ELDI 4 (Electro Optical Distance Meter), manufactured by f.W. Breithaupt & Sohn, GmbH & Co. KG. P.O. Box 100569 D-3500 Kassel, Germany, Phone No. 0561-77 20 42, Telex No. 99 22 58, Fax No. 0561-77 20 49.	0	1	0	1	Set
03-05-17003	UNICEF Commodity Code: 482823 Electronic theodolite with stand and other accessories, ETH50	0	1	0	1	Set
03-05-17004	Commodity Code 461132 Diesel generator complete set with control panel board consisting of automatic main failure switch, change-over switch, voltmeter, ammeter, hour meter, phase selector switch, frequency meter, starting key, high temperature warning, low oil pressure warning, low fuel warning and with 12 V electric starting system with battery, battery charger and voltage regulator, and with fresh water loop cooling system, heavy duty air filter, cartridge oil and fuel filter, speed governor, silencer, exhaust flexible piping and with fuel tank to run 8 hours continuously and suitable for continuous operation. Maximum output power 50 KVA, 400V, 3Ph and 50Hz. 50 deg C max; and 1,200 m max alt. The engine and alternator coupled by elastic joint and mounted on a common bed-frame with anti-vibration mountings and lifting eyes with complete tool-kit set. Supplies with O&M manual and spare parts catalogue in English. With spare parts for 2 years normal operation. Packed in wooden case suitable for sea and land	0	3	0	3	Each

CODE	DESCRIPTION	Doh	Erbil	Sul	QTY	Unit
03-05-17005	UNICEF commodity Code: 461131 Generator set, diesel driven, altitude above sea level : 1200 meters, outside temperature range-5 to 50 degrees Celsius, capacity 4.0 KVA, including 2 spare oil filter, 2 spare fuel filter, 1 fan belt unit, description as per attachments, with spare parts for 2 years, operations and spares/ service/ operation Manual (English)	0	1	0	1	each
03-05-17006	UNICEF Commodity Code: 461133 Diesel generator, 100 KVA, same as item No. 6	1	7	3	11	Each
03-05-17007	UNICEF Commodity Code: 461132 Diesel generator, 30 KVA, same as item No. 6	0	0	7	7	Each
03-05-17008	Compact unit (DEGREMONT package plant) for drinking water production capacity 30 m <sup>3</sup> /hr contained feeding pumps, galvanized steel sedimentation tank, pressure filter, filteration and backwash pumps, alum dosinators, and chlorinators all pumps ( address 92508 Rueil- Malmaison Cedex- France).	1	4	3	8	Set
03-05-17009	Tractor with trailer Massey Ferguson type 275 O&M manuals tool kit packed in strong wooden crate. Coventry, England	0	2	0	2	Set
03-05-17010	Commodity code 491740 Hino heavy duty tipper truck (tail gate type) Model: HINO ZY240H, speed No. D-ZY199E Body No. S-DD-Y 98144 - Cab: All steel welded construction, saftey glass applied. Gross vehicle weight:34885Kgs. Maximum payload:20,000Kg/13.2 cubic meters engine:6 cylinder diesel in line over head value, water cooled, directed injection type. tyres: 1200-24-18PR Fuel tank:300 liters.	0	3	0	3	Set