

DATA BOOK - E

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LIST OF SURVEY EQUIPMENT BROUGHT
BY JICA STUDY TEAM

TABLE OF CONTENTS

<u>No.</u>		<u>Page</u>
E-1	INVENTORY OF DRILLING EQUIPMENT.....	E- 1
E-2	LIST OF MATERIALS AND EQUIPMENT OF JICA FOR THE STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU IN THE REPUBLIC OF FIJI.....	E-13

E-1 INVENTORY OF DRILLING EQUIPMENT

INVENTORY OF DRILLING EQUIPMENT

AUGUST 1994

JICA STUDY TEAM

STUDY ON GROUNDWATER DEVELOPMENT IN NORTH VITI LEVU, FIJI.

JICA STUDY TEAM. Study on Groundwater Development in North Viti Levu, Fiji.

(1)

Description of goods	Unit	Quantity		
		New	Used	Total
I . DRILLING MACHINERY & EQUIPMENT :				
1. Cargo Truck, model Hino NZ227K Chas.No.10084 with model Fujikawa JR 502-2, 4.0ton unic	unit		1	1
2. Truck mounted Water Well Drilling Rig, Model Tone TOP-300 with NP-700 grout pump & standard accessories.	unit		1	1
Travelling block, 305mm ϕ \times 1 wheel	pc.		1	1
Air/Water swivel, 6ton with 50mm ϕ high pressure hose	pc.		1	1
Damper, 3-1/2" IF pin joint	pc.		1	1
Dust collector	pc.		1	1
Suction hose with foot valve, 100mm \times 6m	pc.		1	1
Hoisting wire rope with clevis, 14mm \times 40m	pc.		1	1
3. Grout mixer, Model Tone "MC-400" 400 liter with diesel engine	unit		1	1
4. Jet hopper mixer, with 50mm hose connection	set		1	1
5. Water supply pump, Model Kubota "KDP-S20R" 18m head, 500 ℓ /min, with diesel engine	unit		1	1
6. Water supply pump, Model Yanmar "PDA-50P" 44m head, 800 ℓ /min, with L60ADPN diesel engine.	unit		1	1
7. High pressure portable Air Compressor, Model Ingersoll-rand "XHP900WCAT" Engine : Model CAT3406TA, 893cu.in/14.6 ℓ 1800rpm, Compressor : Type oil flooded, two stage 900 cfm/425 ℓ /sec, 350 psig/23.8 bars	unit	1		1
8. Center rack	pcs.		2	2
9. Pipe rack	pcs.		24	24
10. Water tank, Model National marine F-5000	pcs.	4	5	9

Description of goods	Unit	Quantity		
		New	Used	Total
II. DRILLING TOOLS :				
1. Tricone bit, size 12-1/4" with 6-5/8"REG	pcs.	13	2	15
2. " size 10-5/8" "	pcs.	24	2	26
3. " size 8-1/2" with 4-1/2"REG	pcs.	2	4	6
4. Three wing bit, size 12-1/4" with 3-1/2"IF	pcs.	2	2	4
5. Drill pipe, 4-3/4"O.D. with 3-1/2"IF x 3m L.	pcs.	21	53	74
6. Drill collar, 6-3/4"O.D. with 4"IF x 3m long	pcs.	1	4	5
7. Stabilizer, for 10-5/8" Bit, 6-3/4"O.D. with 4"IF x 1m long.	pcs.	2	4	6
8. Stabilizer, for 8-1/2" Bit, 6-1/4"O.D. with 4"IF x 1m long.	pcs.	6		6
9. Bit sub, 4"IF(B) x 6-5/8"REG(B) for 12-1/4" & 10-5/8" Tricone bit,	pcs.	1	3	4
10. Bit sub, 4"IF(B) x 4-1/2"REG(B) for 8-1/2" Tricone bit.	pcs.	1	2	3
11. Bit sub, 3-1/2"IF(B) x 6-5/8"REG(B) for 12-1/4" & 10-5/8" Tricon bit,	pcs.		1	1
12. Cross over sub, 3-1/2"IF(B) x 4"IF(P)	pcs.	1	2	3
13. Savor sub, 3-1/2"IF(B) x 3-1/2"IF(P)	pcs.		1	1
14. Back-up wrench, for 6-3/4" Drill collar	pcs.		2	2
15. Break-out wrench, for 6-3/4" Drill collar	pcs.		2	2
16. Back-up wrench, for 4-3/4" Drill pipe	pcs.		2	2
17. Break-out wrench, for 4-3/4" Drill pipe	pcs.		2	2
18. Hoisting plug, for 4-3/4" Drill pipe	pc.		1	1
19. Lifting plug, for 6-3/4" Drill collar	pc.		2	2
20. Drill pipe hanger, for 4-3/4" Drill pipe	pc.	1	1	2
21. Drill pipe trolley	set		1	1
22. Bit breaker, for 12-1/4" Toricone bit	pc.		1	1
23. " for 10-5/8" "	pc.		1	1
24. " for 8-1/2" "	pcs.		2	2

Description of goods	Unit	Quantity		
		New	Used	Total
III. EQUIPMENT FOR DOWN THE HOLE HAMMER :				
1. Down-the-hole hammer drill for 8"~ 8-1/2" hole	set	1	1	2
2. Botton bit for Down-the-hole hammer	pcs.	6	1	7
3. Hammer sub, 3-1/2" IF(B) × 4" IF(P)	pcs.	1	1	2
4. Cross-over sub, 3-1/2" IF(B) × 4" IF(P)	pcs.		1	1
5. Diasassembling tools for D.T.H.Hammer	set	1	1	2
End, yoke D0721-231	pcs.	1	1	2
Nut E2160-990	pcs.	1	1	2
Pin E2559-199	pcs.	1	1	2
Pin E2559-201	pcs.	2	2	4
Plate E2607-024	pcs.	1	1	2
Wrench C2813-374	pcs.	1	1	2
Wrench C2813-375	pcs.	1	1	2
Wrench C2813-376	pcs.	1	1	2
Wrench C2813-377	pcs.	1	1	2
Pin ass'y E4633-282	set	1	1	2
Ram DI-150 RDA00200	pcs.	1	1	2
Pump P-IC-0 RDA30400	pcs.	1	1	2
High pressure hose 700ksc HCA50020	pcs.	2	2	4
Cotter pin, 5 × 40 PAD05040	pcs.	2	2	4
Bolt, hex. high tension. M24 × 70	pcs.	4	4	8
Bolt, hex. M10 × 16	pcs.	1	1	2
Nut, hex. high tension, M24-1	pcs.	4	4	8
Washer, lock M24	pcs.	4	4	4
Washer, lock M10	pcs.	1	1	2
Washer, plain M24	pcs.	2	2	4
Pressure gauge, AS-75-1000 GPE3001	pcs.	1	1	2
Key KS115063	pcs.	8	8	16

(4)

Description of goods	Unit	Quantity		
		New	Used	Total
IV. CASING TOOLS :				
1. Casing swivel, for 11" surface casing	pcs.	1	2	3
2. " for 9" work casing	pcs.	1	2	3
3. " for 6" steel casing	pcs.		2	2
4. Casing band, for 11" surface casing	pcs.	1	3	4
5. " for 9" work casing	pcs.	2	2	4
6. " for 6" steel casing	pcs.		2	2
7. Casing band with jaw, for 6" steel casing	pcs.		2	2
8. Casing metalshoe for 11" surface casing	pcs.	15		15
9. " for 9" work casing	pcs.	2		2
10. Casing head, for 11" surface casing	pcs.	2		2
11. " for 9" work casing	pc.	1		1
12. 9" Work casing with thread, 3.0m long	pcs.		8	8
13. " 1.0m long	pcs.		4	4
14. 6" Steel casing (165.2mm O.D.) with thread, 5.40m long	pcs.	107		107
16. 6" Well screen (173.0mm O.D.) with thread on both ends, stianless wedged wire wound type, slot size 1mm, 5.25m long	pcs.	33		33
V. FISHING TOOLS :				
1. Male tap for 4-3/4" drill pipe	pc.	1		1
2. Rod band for 4-3/4" drill pipe	pc.	1		1
3. Twin hydraulic jack with hoses and hand pump, 50ton	set	1		1

Description of goods	Unit	Quantity		
		New	Used	Total
VI. EQUIPMENT FOR PUMPING TEST :				
1. Submersible motor pump, Model Okamoto "FZ642/7 for 6" casing with accessories.	set		1	1
2. Above accessories :				
Control panel, Model TD-ELF-8C	set		1	1
Electrode with cable	pc.		1	1
Sluice valve, check valve.	set		1	1
Well cover with elbow	pc.		1	1
Air vent valve	pc.		1	1
Compound gauge	pc.		1	1
Discharge pipe	pc.		1	1
Riser pipe, 80mm × 2.75m	pcs.		22	22
3. Diesel generator, Model Hokuetsu "SDG45S" 35 Kw, 415 V, 50 Hz, 3 Phase,	unit		1	1
4. Submersible motor pump, Model Okamoto OPD4-50-3.7-22FC, with accessories	set		1	1
5. Above accessories:				
Control panel, Model TD-CLF1	set		1	1
Electrode for water level detector	set		1	1
Sluice valve, Check valve, 50mm φ	set		1	1
Air vent valve	pc.		1	1
Compound gauge with cock	pc.		1	1
Discharge frame	pc.		1	1
Riser pipe with socket, 50mm φ × 2.75m	pcs.		18	18
6. Engine Welder & Generator, Model Hokuetsu "PDM-280-SBL51" Generator : 9.9/3KVA, 28.6/30A, 200/100V, 50Hz, 3/1Phase Welder : 8.125Kw, DC 250A, DC 325V, 20~280A	unit		1	1
7. Triangular notch, Model 1500ø	pc.		1	1

Description of goods	Unit	Quantity		
		New	Used	Total
VI. WELL DEVELOPMENT TOOLS :				
1. Discharge pipe with socket 2-1/2" x 5.5m	pcs.		36	36
2. Air pipe with socket, 1" x 5.5m	pcs.		25	25
3. Bent pipe with 1" pipe hole, 2-1/2" x 0.5m	pcs.		2	2
4. Bent pipe, 1" x 0.3m	pcs.		2	2
5. Pipe band, 2-1/2"	pcs.		2	2
6. Pipe band, 1"	pcs.		2	2
7. Pipe hanger, 2-1/2"	pcs.		2	2
8. Pipe hanger, 1"	pcs.		2	2
9. High pressure air hose with fittings, 1" x 10m	pcs.		2	2
10. Nipple, 1"PT x PF	pcs.		2	2
11. Reducer, 2" x 1"	pcs.		2	2
VII. MUD MATERIALS :				
1. Bentonite, 25kg/sx	bags	411		411
2. CNC 10kg/sx	bags	80		80
3. Rester, 20kg/sx	bags.	70		70
4. TEL-star, 20kg/can	can	10		10
5. Telformer, 18kg/can	can	330		330
6. " 10kg/sx	bags	600		600
7. Well cleaner, 20kg/can	can	14		14

Description of goods	Unit	Quantity		
		New	Used	Total
IX. ENGINEERING TOOLS :				
1. Pipe wrench	1200mm	pcs.	6	6
2. - do -	900mm	pcs.	5	5
3. - do -	600mm	pcs.	6	6
4. - do -	450mm	pcs.	2	2
5. Chain tong	ST-2	pcs.	6	6
6. - do -	ST-3	pcs.	4	4
7. - do -	ST-4	pcs.	4	4
8. Boring tong	W-200	pcs.	4	4
9. Ajastable angle wrench	200mm	pcs.	1	1
10. - do -	300mm	pcs.	2	2
11. Combination plier	200mm	pcs.	1	1
12. Cutting plier	200mm	pcs.	3	3
13. Cutting nipper	200mm	pcs.	1	1
14. Socket wrench set	413M	set	1	1
15. - do -	608M	set	2	2
16. Double offset wrench set	A-type	set	2	2
17. Six set wrench	A-type	set	2	2
18. Ratchet offset wrench set	A-type	set	2	2
19. Pocket cutter	250mm	pcs.	3	3
20. Screw driver	200mm(-)	pc.	1	1
21. - do -	200mm(+)	pc.	1	1
22. Combination exchange screw driver		set	2	2
23. Hexagonbar wrench set		set	1	1
24. Cold chisel	160mm	pcs.	2	2
25. Cape chisel	160mm	pcs.	2	2
26. Machinist hammer	450gr	pcs.	2	2
27. - do -	900gr	pcs.	2	2
28. Copper hammer	2 kg	pcs.	2	2
29. Black smith hammer	5 kg	pcs.	2	2
30. Hacksaw fremes		pcs.	2	2

Description of goods	Unit	Quantity		
		New	Used	Total
31. Bar 900mm	pcs.		3	3
32. Nail puller 460mm	pcs.		6	6
33. Machinist file set 250mm	set		2	2
34. Needle file set	set		1	1
35. Portable electric drill with drill set	pc.		1	1
36. Disk grainder 200V 100mm ϕ	pcs.		2	2
37. Lever block 750kg	pcs.		2	2
38. Ratchet lever hoist 1.5ton	pcs.		4	4
39. Iron block 150mm ϕ	pcs.		3	3
40. - do - 200mm ϕ	pcs.		4	4
41. Shovel round type	pcs.		7	7
42. - do - square type	pcs.		4	4
43. Picks	pcs.		4	4
44. Tap-dies set	set		1	1
45. Shino bar	pcs.		4	4
46. Vernier caliper 300mm	pc.		1	1
47. Folding rule	pc.		1	1
48. Square with base 500 x 300	pc.		1	1
49. Aluminum level with magnet	pc.		1	1
50. Grip plier 255mm	pc.		1	1
51. Bench vise A-150	pc.		1	1
52. Gear puller G-10	pc.		1	1
53. - do - G-8	pc.		1	1
54. Screw clamp 50	pcs.		2	2
55. - do - 100	pcs.		2	2
56. - do - 200	pcs.		2	2
57. Reel concent 15A-30m	pcs.		3	3
58. Drum pump rotary type	pcs.		6	6
59. Grease gun	pcs.		2	2
60. Tool box	pcs.		2	2

Description of goods	Unit	Quantity		
		New	Used	Total
X. MISCELLANEOUS TOOLS :				
1. Sea container	7' × 7' × 20'	pes.	2	2
2. Tent house	2m × 3m × 1.8m	pes.	2	2
3. Battery	120A-12V	pes.	4	4
4. Down transformer	240/100V	pc.	1	1
5. Electric multimeter		pes.	2	2
6. Measuring rope	100m	pes.	2	2
7. Sling wire	12mm × 3m	pes.	4	4
8. - do -	12mm × 10m	pes.	6	6
9. - do -	16mm × 1m	pes.	2	6
10. - do -	16mm × 6m	pes.		10
11. - do -	16mm × 10m	pes.	2	8
12. - do -	24mm × 6m	pes.	2	2
13. Water hose, model FH1002S, 50A, 250PIS, 20m		pes.	15	15
14. Sany hose	50A × 100m	pes.	3	3
15. Construction pipe and clamp				
40A Construction pipe	5m	pes.	80	80
- do -	4m	pes.	100	100
- do -	3m	pes.	100	100
- do -	2m	pes.	50	50
- do -	1.5m	pes.	50	50
40A Flexible clamp		pes.	150	150
40A Cross clamp		pes.	150	150
Pipe base		pes.	40	40
Connecting coupling		pes.	80	80
16. Steel mat	4' × 8'	pes.		14
17. - do -	3' × 8'	pes.		8
18. - do -	20" × 20"	pes.		8

Description of goods	Unit	Quantity		
		New	Used	Total
XI. SPARE PARTS AND DISASSEMBLING TOOLS :				
1. Spare parts for TOP-300 drill unit	lot	1		1
2. Spare parts for truck of TOP-300 drill rig	lot	1		1
3. Spare parts for model Ingersoll-rand "XHP900MCAT" air compressor	lot	1		1
4. Spare parts for model Hokuetsu "SDG45S" diesel generator	lot	1		1
5. Repair parts for TOP-200 drill unit	lot	1		1
6. Repair parts for truck of TOP-200 drill rig	lot	1		1
7. Repair parts for model Hokuetsu "PDSH-500" air compressor	lot	1		1
8. Disassembling tools for TOP-300 drill	lot		1	1
9. Disassembling tools for TOP-200 drill	lot		1	1
10. Disassembling tools for Hokuetsu "PDSH-500" air compressor	lot		1	1

**E-2 LIST OF MATERIALS AND EQUIPMENT OF JICA FOR
THE STUDY ON GROUNDWATER DEVELOPMENT
IN NORTH VITI LEVU IN THE REPUBLIC OF FIJI**

JAPAN INTERNATIONAL COOPERATION AGENCY

December 21st 1994

List of Materials and Equipment of JICA for the Study on Groundwater Development in North Viti Levu in the Republic of Fiji.

1. Hydrogeological Materials and Equipment

- 1) Pocket type conductivity meter 1 set
Yokogawa "SC 82"
- 2) Pocket type PH meter 1 set
Yokogawa "PH81"
- 3) Portable water quality test equipment 1 set
Portable type water checker Model: U-10
- 4) Water sampler (500 cc) 1 set
Hand held winch with 100 m rope
- 5) Poly-made bottle for water sampling (1,000 cc) 200 pcs*1
- 6) Automatic water level recorder 10 sets*2
Model: W-761 with accessories
Recording paper 80 rolls, Cartridge pen 72 pcs, Wire Rope 200m 10pcs
- 7) Portable water level meter 3 sets
Alpha Optical "type 1" for 100m 1set
NP-100 for 100m 2 sets
- 8) Portable diagonal beam flow meter 1 set
Portaflow MkII
- 9) Personal computer (IBM, 32bite) 1 set
IBM DOS/2 Model 56, Key Board, Color Display 14" 8515,
Floppy Disk 3.5" 2HD 30 pcs, Auto-voltage regulator 240/100V 2KVA
- 10) Laser printer 1 set
HP Laser Jet IV, Printer cable, Tray for printer, Printer papers A-4,
Toner cartridge (20 pcs)
- 11) Soft wares for personal computer 1 set
MS-DOS, Word Perfect ver 5.1, MS-Windows ver 3.1,
MS-Word for Windows ver 2, MS-Excel ver 4, MS-FORTRAN ver 5,
MS- Visual Basic
- 12) Personal computer (COMPAQ, 32bite) 1 set
COMPAQ PROLINEA 4/66 Model 525W, Color Monitor 141564-695,
Memory/COMPAQ 4MB 141684-291
- 13) Soft wares for groundwater simulation 1 set
MODFLOW/EM, MODGRAF/EM

2. Hydrological Equipment

- 1) Current meter (range 0.1-3 m/sec) 1 set
Model:J-072

3. Vehicle

- 1) 4WD Vehicle 2 nos
Toyota Land Cruiser (GL904 and GL905)

Note:

*1: Consumed

*2: Two out of ten recorders were out of order.

The recorder at observation well No.GW044 was destroyed during the Study.

The float and counter weight for recorder at observation well No.GW042 were stolen during the Study.

1911