

SOUTH NSIKAZI WATER SUPPLY SCHEME: OPERATIONS AND MAINTENANCE

ITEM NO	DESCRIPTION	UNIT	TENDER QUANTITY	RATE	CLAIM THIS CERTIFICATE
PART 1 SECTION C3.4.2.0 (1100): CONTRACTOR'S ESTABLISHMENT ON SITE					
3.4.2.10.2.1	Fixed-charge items:				
	.1 Establishing of facilities (Kanyamazane WTW and Old WTW)	month	36		
	.2 Communications facilities:				
	(a) Telephone	month	36		
	(b) Fax	month	36		
	(c) Radio communications	month	36		
	.3 Storage facilities	month	36		
	.4 Name boards	Number	1		
	.5 Removal of facilities on completion of the contract	Number	1		
3.4.2.10.2.2	Time-related charges:				
	.1 General	months	36		
	.2 Communications facilities:				
	(a) Telephone	month	36		
	(b) Fax	month	36		
	(c) Radio communications	month	36		
	(d) Computer	month	36		
	.3 Storage facilities	month	36		
	.4 Name boards	month	1		
	.5 Provision of supporting personnel				
	(a) Project Manager (B.Eng/BSc/Btech - Civil/Electrical/Mechanical Engineering)	month	36		
	(b) Technician (N.Diploma - Civil/Electrical/Mechanical Engineering)	month	36		
	(c) Administrative Clerks x 2	hrs	11520		
	(d) Payroll Officer	hrs	5760		
	(e) HR Personnel	hrs	5760		
	(f) Stores Attendant x 2	hrs	11520		
	(g) OHS Officr	month	36		
	.6 Provision of security personnel				
	(a) Armed grade C or better (per shift) - x 8	month	36		
	(b) Unarmend grade C or better (per shift) - 8	month	36		
PART 1 SECTION 1100: TOTAL CARRIED TO SUMMARY					R

ITEM NO	DESCRIPTION	UNIT	TENDER QUANTITY	RATE	CLAIM THIS CERTIFICATE
PART 1 SECTION 3.4.1.2.4 (1200): OPERATIONS PERSONNEL					
3.4.1.2.8.1.1	Provision of operators on Site: Kanyamazane Regional Water Scheme				Rate Only
	.1 Pump operator x 28	op-mth	161280		
	.2 Class II operator x 4	op-mth	23040		
	.3 Class III operator x 12	op-mth	69120		
	.4 Class IV operator x 8	op-mth	46080		
	.5 Class V operator x 1	op-mth	5760		
	.6 Samplers x 6	op-mth	34560		
3.4.1.2.8.1.2	Provision of labourers on Site:				Rate Only
	.1 Permanent labourers (general workers at WTW & BPS)	hrs	34560		
	.2 Temporary labourers (per person)	hrs	0		
	Provision of additional personnel on Site (Package Plants):				
	.1 Class II operator	hrs	23040		
	.2 Permanent labourers x 2	hrs	11520		
	.3 Class V operator	hrs	5760		
3.4.1.2.8.1.3	Training of personnel (accredited):				
	.1 Training of personnel:				
	(a) Skills Training for pump operators on pumping station operations	per annum	3		
	(b) Skills Training for process controllers on water treatment works operations	per annum	3		
	(c) Skills Training for samplers on water sampling procedures or similar	per annum	3		
	(d) Skills Training for Artisan Plumbers on maintenance of pipes and valves or similar	per annum	3		
	(d) Skills Training for Artisans (plumbers, electricians, fitter and turners etc) on maintenance of pipes, valves, electrical equipment etc or similar	per annum	3		
PART 1 SECTION 1200: TOTAL CARRIED TO SUMMARY					R
PART 1 SECTION 3.4.1.3.3 (1300): ACCREDITED LABORATORY SERVICES					
3.4.1.3.3.2.1	Performance of and reporting on testing specified for as per Drinking Water Standards SANS 241:2016				
	.1 Kanyamazane Old Water Scheme	month	36.0		
	.2 Kanyamazane New Water Scheme	month	36.0		
	.3 Dwaleni Water Package Plant Scheme	month	36.0		
	Contractor's charges on outsourced services	%	0.0		
PART 1 SECTION 1300: TOTAL CARRIED TO SUMMARY					R

ITEM NO	DESCRIPTION	UNIT	TENDER QUANTITY	RATE	CLAIM THIS CERTIFICATE
PART 1 SECTION C3.4.1.4(1400): MAINTENANCE SERVICES AT TREATMENT PLANTS AND PUMP STATIONS					
C3.4.1.4.3	Routine inspection and maintenance of facilities as per personnel provided in Section C3.4.2.0 .1 Nsikazi South Pump Stations: .1 KZN Raw Water Pump Station .2 Emergency Raw Water Pump Station .3 Kanyamazane/Pienaar Clear Water Pump Station .4 TV Ngodini Booster Pump Station .5 Dwaleni Raw & Clear Water Pump Station .6 Dwaleni Upper Booster Pump Station .7 Hospital/Mpumalanga Pump Station .8 Gustshwa Booster Pump Station .9 Teka-Tako Booster Pump Station	month	36		
		month	36		
		month	36		
		month	36		
		month	36		
		month	36		
		month	36		
		month	36		
		month	36		
C3.4.1.4.4&5	General and emergency repairs and maintenance as and when it occurs subject to Clients Approval: .1 Mark-up on Execution of specialized emergency repair work .2 Mark-up on Supply and delivery of emergency spares .3 Mark-up on Provision of Materials	Month	36		Rate Only
		%	Rate Only		
		%	Rate Only		
		%	Rate Only		
PART 1 SECTION 1400: TOTAL CARRIED TO SUMMARY					R

PART 1 SECTION C3.4.1.5.2 (1500): SUPPLY OF CHEMICALS					
C3.4.1.5.3.2	Supply, storage and delivery of chemicals: .01 Supply, storage and delivery of chemicals: (a) Chlorine granules (b) Chlorine (gas): (i) Tonne Cylinders (925kg Cylinders) (ii) 78kg Cylinders (c) Drinking water chlorine tablets (10kg x 10 per box) (d) Lime (e) Sodium Hypochloride (f) Flocculant (g) Soda Ash (h) DPD Tablets	per 25kg	576		
		ton	576		
		per 78kg	72		
		per box	180		
		per 25kg	2880		
		ton	0		Rate Only
		ton	864		
		per 25kg	0		Rate Only
		per 10kg box	180		
15.02	Contractor's charges				
	.01 Chlorine (HTH)	%	0.00		
	.02 Chlorine (gas): (a) Tonne Cylinders (925kg Cylinders)	%	0.00		
	.03 Drinking water chlorine tablets	%	0.00		
	.04 Lime	%	0.00		
	.05 Sodium Hypochloride	%	0.00		
	.06 Focculant	%	0.00		
PART 1 SECTION 1500: TOTAL CARRIED TO SUMMARY					R

SOUTH NSIKAZI - CIVILS

ITEM NO	DESCRIPTION	UNIT	TENDER QUANTITY	RATE	CLAIM THIS CERTIFICATE
PART 2 SECTION 3.1.1.6.8.1 (1600): OPERATION AND MAINTENANCE OF REGIONAL WATER SUPPLY SCHEMES					
3.4.1.6.8.1.1	Routine inspection and maintenance	month	36		
3.4.1.6.8.1.2	Routine and Emergency Repair Work:				
	.01 Labour:				
	(a) Skilled - Normal	hrs	23,040.0		
	(b) Skilled - After hours	hrs	11,520.0		
	(c) Semi-skilled - Normal	hrs	46,080.0		
	(d) Semi-skilled - After hours	hrs	23,040.0		
	(e) Unskilled - Normal	hrs	69,120.0		
	(f) Unskilled - After hours	hrs	34,560.0		
	.02 Plant:				
	(a) LDV 4x4 = 7	month	36.0		
	(b) TLB 4 x 4	month	36.0		
	(c) Fatbed up to 12 Tonne	month	36.0		
	(d) 6 cubic meter truck	month	36.0		
	(e) Waterpump submersible with generator	month	36.0		
	(f) Compressor	month	36.0		
	(g) Generator	month	36.0		
	(h) Welding machine (industrial)	month	36.0		
	.03 Purchase of material:				
	(a) uPVC pipes - class 9:				
	(i) 75mm dia uPVC pipes	m	0.0		Rate Only
	(ii) 110mm dia uPVC pipes	m	0.0		Rate Only
	(iii) 160mm dia uPVC pipes	m	0.0		Rate Only
	(iv) 200mm dia uPVC pipes	m	0.0		Rate Only
	(v) 250mm dia uPVC pipes	m	0.0		Rate Only
	(vi) 315mm dia uPVC pipes	m	0.0		Rate Only
	(vii) 350mm dia uPVC pipes	m	0.0		Rate Only
	(b) Steel pipes:				
	(i) 75mm dia (medium duty)	m	0.0		Rate Only
	(ii) 100mm dia (medium duty)	m	0.0		Rate Only
	(iii) 200mm dia (t=4,5mm)	m	0.0		Rate Only
	(iv) 250mm dia (t=4,5mm)	m	0.0		Rate Only
	(v) 300mm dia (t=4,5mm)	m	0.0		Rate Only
	(vi) 350mm dia (t=4,5mm)	m	0.0		Rate Only
	(vii) 450mm dia (t=4,5mm)	m	0.0		Rate Only
	(viii) 600mm dia (t=4,5mm)	m	0.0		Rate Only
	(c) Couplings (working pressure 100m):				
	(i) 75mm dia repair couplings (PVC or CI)	No	0.0		Rate Only
	(ii) 110mm dia repair couplings (PVC or CI)	No	0.0		Rate Only
	(iii) 160mm dia repair couplings (CI or epoxy steel)	No	0.0		Rate Only
	(iv) 200mm dia flexible couplings (CI or epoxy steel)	No	0.0		Rate Only
	(v) 250mm dia flexible couplings (CI or epoxy steel)	No	0.0		Rate Only
	(vi) 315mm dia flexible couplings (CI or epoxy steel)	No	0.0		Rate Only
	(vii) 350mm dia flexible couplings (CI or epoxy steel)	No	0.0		Rate Only
	(d) Valves (working pressure 100m):				

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	(i) 75mm dia isolating valves	No	6.0		Rate Only
	(ii) 110mm dia isolating valves	No	2.0		Rate Only
	(iii) 160mm dia isolating valves	No	3.0		Rate Only
	(iv) 200mm dia isolating valves	No	3.0		Rate Only
	(v) 250mm dia isolating valves	No	3.0		Rate Only
	(iii) 300mm dia isolating valves	No	3.0		Rate Only
	(iv) 350mm dia isolating valves	No	3.0		Rate Only
	(v) 400mm dia isolating valves	No	4.0		Rate Only
	(iii) 450mm dia isolating valves	No	4.0		Rate Only
	(iv) 500mm dia isolating valves	No	0.0		Rate Only
	(v) 550mm dia isolating valves	No	0.0		Rate Only
	(iii) 600mm dia isolating valves	No	0.0		Rate Only
	(iv) 700mm dia isolating valves	No	1.0		Rate Only
	(v) 800mm dia isolating valves	No	0.0		Rate Only
	(iii) 900mm dia isolating valves	No	0.0		Rate Only
	(vi) 150mm dia equilibrium float	No	3.0		Rate Only
	(vii) 100mm dia equilibrium float	No	3.0		Rate Only
	(viii) 80mm dia equilibrium float	No	3.0		Rate Only
	(ix) 50mm dia equilibrium float	No	2.0		Rate Only
	(x) 25mm dia equilibrium float	No	31.0		Rate Only
	(xi) 20mm dia equilibrium float	No	31.0		Rate Only
	(xii) 150mm dia LevelDex	No	1.0		Rate Only
	(xiii) 100mm dia LevelDex	No	1.0		Rate Only
	(xiv) 80mm dia LevelDex	No	1.0		Rate Only
	(xv) 150mm dia LevelDex - set	No	5.0		Rate Only
	(xvi) 100mm dia LevelDex - set	No	13.0		Rate Only
	(xvii) 80mm dia LevelDex - set	No	5.0		Rate Only
	(xviii) 80mm dia air valves	No	6.0		Rate Only
	.04 General repairs and maintenance as required by the Engineer:	month	36		
16.07	Emergency (flood damage, etc) repair to access roads:				
	.01 Miscellaneous maintenance and repair work	%	0		Rate Only
	.02 Contractor's mark-up and profit	%	0		Rate Only
PART 2 SECTION 1600: TOTAL CARRIED TO SUMMARY					R

ITEM NO	DESCRIPTION	UNIT	TENDER QUANTITY	RATE	CLAIM THIS CERTIFICATE
PART 2 SECTION 1700: NEW CONSTRUCTION WORK					
17.01	Supply, lay and bed uPVC pipes, including excavation to a maximum depth of 1.5m:				
	.01 Pipes of working pressure 120 metres:				
	(a) 75-90mm diameter	m	8		Rate Only
	(b) 90-110mm diameter	m	13887		Rate Only
	(c) 110-160mm diameter	m	33556		Rate Only
	(d) 160-200mm diameter	m	7725		Rate Only
	(e) 200-250mm diameter	m	15528		Rate Only
	(f) 250-300mm diameter	m	10		Rate Only
	(g) 300-400mm diameter	m	3818		Rate Only
	(h) 400-500mm diameter	m	14524		Rate Only
	(i) 500-600mm diameter	m	134		Rate Only
	(j) 600-700mm diameter	m	581		Rate Only
	(k) 700-800mm diameter	m	10		Rate Only
	(l) 800-900mm diameter	m	3449		Rate Only
17.03	Supply, and install plain ended valves, complete with couplings to suit uPVC pipes:				
	.01 For working pressure of 120m:				
	(a) 75-90mm diameter	No	0		Rate Only
	(b) 90-110mm diameter	No	0		Rate Only
	(c) 110-160mm diameter	No	0		Rate Only
	(d) 160-200mm diameter	No	0		Rate Only
	(e) 200-250mm diameter	No	0		Rate Only
	(f) 250-300mm diameter	No	0		Rate Only
	(g) 300-400mm diameter	No	0		Rate Only
	(h) 400-500mm diameter	No	0		Rate Only
	(i) 500-600mm diameter	No	0		Rate Only
	(j) 600-700mm diameter	No	0		Rate Only
	(k) 700-800mm diameter	No	0		Rate Only
	(f) 800-900mm diameter	No	0		Rate Only
17.04	Supply and install saddles for stand pipes (PVC or CI):				
	.01 For working pressure of 90m and pipes:				
	(a) 75mm diameter	No	0		Rate Only
	(b) 110mm diameter	No	0		Rate Only
	(c) 160mm diameter	No	0		Rate Only
	(d) 200mm diameter	No	0		Rate Only
	(e) 250mm diameter	No	0		Rate Only
	(f) 315mm diameter	No	0		Rate Only
	.02 For working pressure of 120m and pipes:				
	(a) 75mm diameter	No	0		Rate Only
	(b) 110mm diameter	No	0		Rate Only
	(c) 160mm diameter	No	0		Rate Only
	(d) 200mm diameter	No	0		Rate Only
	(e) 250mm diameter	No	0		Rate Only
	(f) 315mm diameter	No	0		Rate Only

ITEM NO	DESCRIPTION	UNIT	TENDER QUANTITY	RATE	CLAIM THIS CERTIFICATE
17.05	Concrete work:				
	.01 Stand pipes complete with pipe work	No	0		Rate Only
	.02 Valve boxes:				
	(a) 600mm x 600mm single air valve boxes, complete with covers	No	0		Rate Only
	(b) 1200mm x 600mm double air valve boxes, complete with covers	No	0		Rate Only
	(c) 1300mm x 1200mm isolating valve boxes, complete with covers	No	0		Rate Only
PART 2 SECTION 1700: TOTAL CARRIED TO SUMMARY					R