

**OR TAMBO DISTRICT MUNICIPALITY**

MNQEZU WATER SUPPLY SCHEME

ORTDM SCMU 27-25/26

## SECTION 1: PRELIMINARY AND GENERAL

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
1	SANS 1200 A	<b>PRELIMINARY AND GENERAL</b>				
1.1	8.3	<b><u>Scheduled Fixed-Charge and Value-Related Items</u></b>				
1.1.1	8.3.1	Contractual Requirements	Sum	1		
		<u>Provision for the site facilities:</u>				
1.1.2	8.3.2.1	a) Facilities for the Engineer	Sum	1		
1.1.3	8.3.2.2	b) Facilities for the Contractor	Sum	1		
1.1.4	8.3.3	General responsibilities and other fixed charge obligations including any other obligations,	Sum	1		
1.1.5	8.3.4	Removal of site establishment on completion of the project	Sum	1		
1.1.6	PSA <del>XXX</del>	Compliance with the OHS Act regulations and other adjustments to ensure compliance for the assignment including maintenance of a register for workers)	Sum	1		
1.1.7		Preparation of a OHS Plan	Sum	1		
		<u>Costs of medical certificate and Medical Surveillance.</u>				
1.1.8		a) Initial (baseline) medical examinations	No.	15		
1.1.9		b) Exit examinations	No.	15		
1.1.10		Allowance for Health and Safety Officer	Sum	1		
		<u>Environmental Management</u>				
1.1.11		a) Compliance with Environmental Management plan including waste management - Waste Bins	Sum	1		
1.1.12		Provision of survey equipment for the use of the Engineer	No	1		
1.2	8.4	<b>SCHEDULED TIME-RELATED ITEMS</b>				
1.2.1	8.4.1	Contractual requirements	Sum	1		
1.2.2	8.4.2	Occupation and maintenance of the site facilities				
1.2.3	8.4.2.1	a) Facilities for the Engineer	Sum	1		
1.2.4	8.4.2.2	b) Facilities for the Contractor,	Sum	1		
1.2.5		General responsibilities and other time related obligations.	Sum	1		
1.2.6	PSA <del>XXX</del>	Compliance with the OHS Act regulations Rate to include for risk assessment epidemic and other adjustments to ensure compliance for the assignment including maintenance of a register for workers.	Sum	1		
1.2.7		Contractors supervision for the duration of the contract	Sum	1		
Carried Forward						R0,00

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<b>Brought Forward</b>						<b>R0,00</b>
1.3		<b>SUMS STATED PROVISIONALLY BY THE ENGINEER</b>				
1.3.1	PSA3	Employment of CLO for the duration of the Contract (R7500 pm plus R500 pm cellphone allowance)	Prov. Sum	1	R24 000,00	R24 000,00
1.3.2		Contractors markup on item 1.3.1	%	R24 000,00		
1.3.3		Allow for Civil Engineering trainee	Prov. Sum	1	R30 000,00	R30 000,00
1.3.4		Contractors markup on item 1.3.3	%	R30 000,00		
1.3.5		Allow for Data and Airtime to the Engineers site personnel for the duration of the Contract	Prov. Sum	1	R600,00	R600,00
1.3.6		Contractors markup on item 1.3.9	%	R600,00		
1.3.7		Provision of Engineering Survey as instructed by the Engineer	Prov. Sum	1	R25 000,00	R25 000,00
1.3.8		Contractors markup on item 1.3.11	%	R25 000,00		
1.3.9		Payment of PSC members for attendance of meetings for the duration of the contract (5 No members at R500 per member per meeting)	Prov. Sum	1	R7 500,00	R7 500,00
1.3.10		Contractors markup on item 1.3.15	%	R7 500,00		
1.4	8.7	<b>Dayworks</b>				
1.4.1		Foreman	hr	10		
1.4.2		Skilled	hr	10		
1.4.3		Semi-skilled	hr	10		
1.4.4		Unskilled	hr	10		
<b>Total Carried Forward To Summary</b>						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
2	SANS 1200 C & PSC	SITE CLEARANCE				
2.1		<u>CLEAR SITE</u>				
2.1.1	8.2.1	Clear and grub vegetation in strip 2m wide on pipe route. Rate to include for trees of girth up to and including 1m.	m	3 777,36		
2.1.2	8.2.2	<u>Where instructed remove and grub large trees and tree stumps of girth;</u>				
2.1.2.1	8.2.2(a)	over 1m and up to 2m.	No.	10		
2.1.3	8.2.10	Remove topsoil in 600mm wide strip to depth of 150mm, stockpile, maintain and reinstate.	m <sup>3</sup>	397		
2.1.4	PSC 8.2.13	<u>Remove existing gravel layer works to stockpile and maintain (for use as selected layers) as instructed by the Engineer.</u>				
2.1.4.1		Gravel layer works to District Roads.	m <sup>3</sup>	50		
2.1.4.2		Fill material	m <sup>3</sup>	80		
2.1.4.3		Relocation of existing fences	km	0		
2.1.4.4		Working adjacent to existing services (stormwater pipes, stormwater v-drains, water pipes and electrica and telecommunication services)	m	100		
2.1.4.5		Working parallel to existing services (stormwater pipes, stormwater v-drains, water pipes and electrica and telecommunication services)	No	20		
Total Carried Forward To Summary						

SECTION 3 : PIPE TRENCHES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
3	SANS 1200 D & 200 DB	PIPE TRENCHES				
3.1	PSDB 8.3.2	<u>Excavation</u>				
3.1.1	8.3.2(a)	<u>Excavate in all materials for trenches backfill, compact, and dispose of surplus/unsuitable material, for pipes:</u>				
3.1.1.1		<u>Up to and including 200mm ND for total trench depth:</u>				
3.1.1.1.1		Exceeding 0,0m but not exceeding 1.5m	m³	3 966		
3.1.1.1.2		Exceeding 1.5m but not exceeding 3.5m	m³	991,56		
3.1.1.1.3		Extra over item for 3.1.1.1.1 for hard rock (Prov)	m³	793		
3.1.1.1.4		Extra over item for 3.1.1.1.1 for bolder excavation (Prov)	m³	397		
3.1.1.1.5		Extra over item for 3.1.1.1.1 for blasting to remove rock	PSum	1	R100 000,00	R100 000,00
3.2		<u>Slope Protection (Provisional)</u>				
3.2.1		Earth diversion berms as instructed by the Engineer	PSum	1	R20 000,00	R20 000,00
Total Carried Forward to Summary						

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
5	SANS 1200 LB & PS LB	BEDDING				
5,1	8.2.1 & PS LB 3.1	<u>Provision of Bedding from Trench Excavation</u>				
5.1.1	8.2.1 (a)	Selected granular material	m³	997		
5.1.2	8.2.1 (b)	Selected fill material	m³	2 772		
5,2	8.2.2	<u>Supply only of Bedding by Importation</u>				
5.2.1	8.2.2.1	<u>From other necessary excavations (Provisional)</u>				
5.2.1.1	8.2.2.1 (a)	Selected granular material	m³	299		
5.2.1.2	8.2.2.1 (b)	Selected fill material	m³	832		
5.2.2	8.2.2.3	<u>From Commercial sources</u>				
5.2.2.1	8.2.2.3 (a)	Selected granular material	m³	100		
5.2.2.2	8.2.2.3 (b)	Selected fill material	m³	166		
5,3	8.2.3	<u>Concrete Bedding Cradle (Provisional)</u>				
5.3.1		15/19 Grade concrete	m³	2		
5,4	8.2.4	<u>Encasing of Pipes in Concrete (Provisional)</u>				
5.4.1		Encasement of Pipe in 25/19 Grade concrete including all formwork and reinforcement (100kg steel per m³ concrete) for water crossings. Refer to standard detail	m³	6		
5,5	8.2.4	<u>Thrust Blocks</u>				
5.5.1		Construct thrust blocks in 25/19 Grade concrete including all preparation work and formwork required. Refer to standard detail	m³	8		
Total Carried Forward To Summary						

SECTION 6 : MEDIUM PRESSURE PIPELINES

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
6	SANS 1200 L	<b>MEDIUM PRESSURE PIPELINES</b>				
6,1	8.2.1	<u>Supply, bed, lay, disinfect, join and test potable water pipelines. All works inclusive in the rate, except where specific items are provided. All activities in accordance with project specifications.</u>				
		<b><u>HDPe Pipes</u></b>				
6.1.1		50 mm dia. PN 10	m	100		
6.1.2		63 mm dia. PN 10	m	100		
6.1.3		75 mm dia. PN 10	m	100		
		<b><u>uPVC Pipes</u></b>				
6.1.6		90 mm dia. CL 9	m	100		
6.1.7		90 mm dia. CL 12	m	3 277		
6.1.8		110 mm dia. CL 9	m	100		
6,2	PSL 8.2.16	Pipeline Markers as per standard detail	No.	32		
6.2.1		Supply and install standpipe complete including HDPE saddle, 32mm HDPe pipe(20m), tap and galvanised riser pipe, concrete work including shuttering, elbows, nipples, etc, as per standard drawings. Work to be executed by a nominated SMME sub contractor	No	2		
6.2.2		Install Aqua Flow limiters where instructed by the Engineer complete as per detailed drawings. Work to be executed by a nominated SMME sub contractor	No	1		Rate Only
6,3		Connect into new reservoir and make good.	Prov Sum	1	50 000,00	R50 000,00
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## SECTION 7 : PIPE SPECIALS AND FITTINGS

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
7	SANS 1200 L	<b>PIPE FITTINGS AND SPECIALS</b>				
	8.2.2	<u>Extra-over 8.2.1 for the Supplying, Laying and</u>				
	PSL 8.2.4 PSL	<u>Bedding of Specials complete with Couplings as</u>				
	8.2.5	<u>follows:-</u>				
	8.2.4	<u>Supply, lay, joint and bed including cutting pipes</u>				
	PSL 8.2.6	<u>where required for the following:</u>				
7.1.		<b>uPVC Pipe Bends (CL 9 to 12)</b>				
7.1.1		90mm dia 11.25° bends.	No.	111		
7.1.2		90mm dia 22.5° bends.	No.	44		
7.1.3		90mm dia 45° bends.	No.	7		
7.1.4		90mm dia. 90° bends.	No.	3		
7.1.5		110mm dia 11.25° bends.	No.	1		Rate Only
7.1.6		110mm dia 22.5° bends.	No.	1		Rate Only
Total Carried Forward To Summary						

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**SECTION 8 : VALVES**

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>8</b>		<b>VALVES</b>				
8.1	8.2.3	<u>Extra-over 8.2.1 for the supplying, fixing and Bedding of Valves as indicated below:</u>				
		<u>Air Valves Complete</u>				
8.1.1		Supply and install Air Valve assemblies Complete with valve chamber as per detailed drawings.				
8.1.1.1		90mm	No.	13		
		<u>Scour Valves Complete</u>				
8.1.2		Supply and install Scour Valve assemblies Complete with wedge gate valve and valve chamber as per detailed drawings. Rate is inclusive of valve chamber, scour pipework and headwall to scour pipe.				
		90mm	No.	6		
		<u>Bulk Water Meter Complete</u>				
8.1.3	8.2.5	Supply and install Bulk Water Meter assemblies complete with prefabricated meter chamber as per detailed drawings. All valve chambers will be installed by SMME contractors				
8.1.3.1		110mm	No.	1		
<b>Total Carried Forward to Summary</b>						



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**SECTION 9 : RESERVOIRS**

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>9</b>		<b>RESERVOIRS</b>				
9,1		Construct new 250kℓ reservoir complete	Prov Sum	1	R 766 134,43	R766 134,43
9,2		Security fence constructed of 2.4m High formed of thirteen strands of straining wires each strand formed of twisted double strand 1,6mm thick galvanised wires incorporating three barbs in every twist at 150mm centres mechanically strained between straining and/or gate and corner posts at maximum 10m centres with one end passed through holes and securely tied to posts and other end securely tied to and including eyebolts bolted onto posts with and including 2,5mm galvanised binding wire; the fence complete with and including three rows of flat wrap razor security wire in 600mm diameter vertical loops fixed at each intersection with barbed straining wires with and including 2,5mm galvanised binding wire. With 100mm Diameter x 3,5mm thick galvanised intermediate post 3,4m long with pressed steel cap welded onto top; the post to be holed as required for wires and straining bolts and with 150 x 150 x 4mm mild steel base plate welded onto bottom end: including setting up post and embedding in position in concrete base	Pov Sum	1	R 200 000,00	R200 000,00
9,3		Supply and install double leaf vehicle gates	Pov Sum	1	R 15 000,00	R15 000,00
<b>Total Carried Forward to Summary</b>						

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**SECTION 10 : BOREHOLE PUMP STATION AND WATER TREATMENT**

ITEM NO	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT R
<b>10</b>		<b>BOREHOLE PUMP STATION AND WATER TREATMENT</b>				
10,1		<u>Borehole pump station buildings and pump installations</u>				
10,2		Construct Pumping Station at Borehole MNQ-BH-01(New). Supply and install electrical driven borehole pumpset with Grundfos pumps or similar approved. The tendered rate should include the construction of pump house building as per ORTDM standard detail and installation of all Electrical and Mechanical works (electrical panel, all pipework, water meters, valves, pump controls, etc). The contractor will also be required to compile an operations manual and train operators as identified by the Client. The electrical materials are measured else where under electrification of borehole pump station.  Duty: H = 115m and Q = 2.15l/s	Sum	1		
10,4		Security fence constructed of 2.4m High formed of thirteen strands of straining wires each strand formed of twisted double strand 1,6mm thick galvanised wires incorporating three barbs in every twist at 150mm centres mechanically strained between straining and/or gate and corner posts at maximum 10m centres with one end passed through holes and securely tied to posts and other end securely tied to and including eyebolts bolted onto posts with and including 2,5mm galvanised binding wire; the fence complete with and including three rows of flat wrap razor security wire in 600mm diameter vertical loops fixed at each intersection with barbed straining wires with and including 2,5mm galvanised binding wire. With 100mm Diameter x 3,5mm thick galvanised intermediate post 3,4m long with pressed steel cap welded onto top; the post to be holed as required for wires and straining bolts and with 150 x 150 x 4mm mild steel base plate welded onto bottom end; including setting up post and embedding in position in concrete base	Prov Sum	1	R 200 000,00	R200 000,00
10,5		Supply and install double leaf vehicle gates	Prov Sum	1	R 15 000,00	R15 000,00
<b>Total Carried Forward to Summary</b>						

**SUMMARY OF SECTIONS**

SECTION	DESCRIPTION	AMOUNT (RAND)
1	PRELIMINARY AND GENERAL	
2	SITE CLEARANCE	
3	PIPE TRENCHES	
5	BEDDING	
6	MEDIUM PRESSURE PIPELINES	
7	PIPE FITTINGS AND SPECIALS	
8	VALVES	
9	RESERVOIRS	
10	BOREHOLE PUMP STATION AND WATER TREATMENT	
11	<b>TOTAL OF SECTIONS (VAT EXCLUDED)</b>	
12	ADD: CONTINGENCIES @ 5%	
13	<b>SUB-TOTAL A</b>	
25	ADD: VAT @ 15%	
26	<b>TOTAL PROJECT COST</b>	