

## SECTION 1 : SABS 1200 A - GENERAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
1.1	8.3	FIXED-CHARGE AND VALUE RELATED ITEMS				
1.1.1	8.3.1	Contractual Requirements	Sum	1		
	8.3.2	Establishment of Facilities on the Site				
	8.3.2.1	Facilities for Engineer				
1.1.2	PSAB 3.2	a) Furnished offices (1No.)	Sum	1		
1.1.3		b) Telephone	Sum	1		
1.1.4		c) Nameboards (2 No.)	Sum	1		
	8.3.2.2	Facilities for Contractor				
1.1.5		a) Offices and storage sheds	Sum	1		
1.1.6		b) Workshops	Sum	1		
1.1.7		c) Laboratories	Sum	1		
1.1.8		d) Living accommodation	Sum	1		
1.1.9		e) Ablution and latrine facilities	Sum	1		
1.1.10		f) Tools and equipment	Sum	1		
1.1.11		g) Water supplies, electric power and communications	Sum	1		
1.1.12		h) Dealing with water (see 5.5)	Sum	1		
1.1.13		i) Access (see 5.8)	Sum	1		
1.1.14		j) Plant	Sum	1		
1.1.15	8.3.3	Other Fixed-charge Obligations	Sum	1		
1.1.16	8.3.4	Removal of Site Establishment	Sum	1		
1.1.17	PSA 8.3.5	Provision of a Materials Guarantee	Sum	1		
	PSA 8.4.6	Compliance with the OHS Act (1993, as amended), the Construction Regulations (2014) and the Particular Safety Specification:				
1.1.18	PSHSS 6.1.2; CR 5 (1)(l)	i) Preparation of the Contractor's site specific Health and Safety Plan	Sum	1		
1.1.19	CR 7(1)(b)	ii) Principal Contractor's initial obligations in respect of the Occupational Health and Safety Act and Construction Regulations	Sum	1		
	GSR 2; PSHSS 7.7	iii) Provision of EPWP Branded SABS Personal Protective Equipment				
1.1.20		(a) Hard Hats	No	70		
1.1.21		(b) Reflective vests	No	70		
1.1.22		(c) Protective foot wear	No	70		
1.1.23		(d) Corded Earplugs	No	200		
1.1.24		(e) Dust masks FFP2	No	200		
1.1.25		(g) Gloves	No	200		
1.1.26		(h) Goggles	No	200		
CARRIED FORWARD						

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
	CR 7(1)(g);	iv) Cost of medical certificates and medical surveillance				
1.1.27	PSHSS 7.2	(a) Initial (baseline) medical examinations	No	30		
1.1.28		(b) Exit medical examinations	No	30		
	PSHSS 7.14	v) Fall Protection				
1.1.29		a) Lifeline & anchorage	No	2		
1.1.30		b) Safety Harnesses	No	5		
1.1.31		c) Rescue Kit	No	1		
		vi) Occupational Hygiene Survey				
1.1.32	NIHL 6; PSHSS 7.3	(a) Establishment of noise zones (plant)	Sum	1		
1.1.33		(b) Compliance with Amendment of the Occupational Exposure Control Limit for Silica in Table 1 of the Hazardous Chemical Substances including air sampling and analysis	Sum	1		
1.1.34	PSA 8.4.7	Compliance with EMP and EMPr	Sum	1		
1.2	8.4	TIME-RELATED ITEMS				
1.2.1	8.4.1	Contractual Requirements		1		
	8.4.2	Operation and Maintenance of Facilities on Site, for Duration of Construction, except where otherwise stated				
	8.4.2.1	Facilities for Engineer				
1.2.2		a) Furnished offices (1No.)		1		
1.2.3	PSAB 8.4.1	b) Telephone	Sum	1		
1.2.4		c) Nameboards (2 No.)	Sum	1		
1.2.5		d) Survey assistants and materials	Sum	1		
	8.4.2.2	Facilities for Contractor				
1.2.6		a) Offices and storage sheds	Sum	1		
1.2.7		b) Workshops	Sum	1		
1.2.8		c) Laboratories	Sum	1		
1.2.9		d) Living accommodation	Sum	1		
1.2.10		e) Ablution and latrine facilities	Sum	1		
1.2.11		f) Tools and equipment	Sum	1		
1.2.12		g) Water supplies, electric power and communications	Sum	1		
1.2.13		h) Dealing with water (see 5.5)	Sum	1		
1.2.14		i) Access (see 5.8)	Sum	1		
1.2.15		j) Plant	Sum	1		
1.2.16	8.4.3	Supervision for duration of Construction	Sum	1		
CARRIED FORWARD						

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ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
1.2.17	8.4.5	Other Time-related Obligations	Sum	1		
	PSA 8.4.6	Compliance with the OHS Act (1993, as amended), the Construction Regulations (2014) and the Particular Safety Specification:				
1.2.18	CR 5(1)(g)	i) Principal Contractor's time related obligations in respect of the Occupational Health and Safety Act and Construction Regulations	month	12		
1.2.19	CR 8(5); PSHSS 6.1.5	ii) Provision of a full- time SACPCMP registered Construction Health and Safety Officer	month	12		
1.2.20		iii) Provision of a part-time assistant SACPCMP Candidate Construction Health and Safety Officer for Subcontractor Management & Assistance	month	12		
		iv) OH&S Legal Compliance Training - SAQA UNIT STANDARD				
1.2.21	GSR 3(5); PSHSS 7.5	a) First Aid	No	1		
1.2.22	PSHSS 6.1.7	b) H&S Representative	No	1		
1.2.23	PSHSS 7.14	c) Working at height & rescue operations	No	20		
1.2.24	CR 29(h)	d) Basic Fire Fighting	No	1		
1.2.25	PSHSS 6.1.3/4	e) Safety for Supervisors	No	2		
1.2.26	PSHSS 7.13	f) Temporary Works Training	No	20		
1.2.27	SANS 10085; PSHSS 7.13	g) Scaffolding	No	5		
1.2.28	PSHSS 7.10	h) Plant Operators	No	5		
1.2.29	PSHSS 6.1.6	i) Temporary Roadworks Signage	Sum	1		
1.2.30	PSHSS 7.17	j) Excavation Safety - Supervisors	No	12		
1.2.31		k) Other	Sum	1		
1.2.32	GSR 3; PSHSS 7.5	v) Provision of First Aid Boxes to GSR requirements	No	3		
1.2.33	GMR 18; PSHSS 7.13	vi) Lifting Equipment Inspection by AIA	Sum	1		
1.2.34	PSHSS 7.13	vii) Temporary Works Designs, Inspections and Approval	Sum	1		
1.2.35	CR 7(1)(c) (e)	viii) Submission of a Health and Safety File	Sum	1		
1.2.36	PSA 8.4.7	Compliance with EMP and EMPr	Sum	1		
1.2.37	PSA 8.4.8	Supervision of Subcontractor	Sum	1		
CARRIED FORWARD						

## SECTION 1 : SABS 1200 A - GENERAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
1.3	8.5	BROUGHT FORWARD SUMS STATED PROVISIONALLY BY ENGINEER (Subclause 8.1.2.1 (d))				
1.3.1		Community Liason Officer	Prov. Sum	1	84 000.00	84 000.00
1.3.2		Overheads, charges and profit on 1.3.1 above	%	84000		
1.3.3		Allowance for Nominated Environmental Control Officer	Prov. Sum	0	110 000.00	0.00
1.3.4		Overheads, charges and profit on 1.3.3 above	%	0		
1.3.5		Allowance for Nominated Health and Safety Officer	Prov. Sum	0	230 000.00	0.00
1.3.6		Overheads, charges and profit on 1.3.5 above	%	0		
1.3.7		Allowance for Nominated ISD Officer	Prov. Sum	0	115 000.00	0.00
1.3.8		Overheads, charges and profit on 1.3.7 above	%	0		
1.3.9		Additional Tests required by Engineer	Prov. Sum	1	50 000.00	50 000.00
1.3.10		Overheads, charges and profit on 1.3.9 above	%	50000		
1.3.11		Allowance for additional survey	Prov. Sum	1	50 000.00	50 000.00
1.3.12		Overheads, charges and profit on 1.3.11 above	%	50000		
1.3.13		Allowance for relocation of existing services	Prov. Sum	1	100 000.00	100 000.00
1.3.14		Overheads, charges and profit on 1.3.13 above	%	100000		
1.3.15		Allowance for connections to existing infrastructure	Prov. Sum	1	50 000.00	50 000.00
1.3.16		Overheads, charges and profit on 1.3.15 above	%	50000		
1.3.17		Allowance for River Crossings	Prov. Sum	2	150 000.00	300 000.00
1.3.18		Overheads, charges and profit on 1.3.17 above	%	150000		
1.3.19		Allowance for lightning protection at Reservoir	Prov. Sum	1	50 000.00	50 000.00
1.3.20		Overheads, charges and profit on 1.3.19 above	%	50000		
1.3.21		Allowance for HIV awareness and training	Prov. Sum	1	10 000.00	10 000.00
1.3.22		Overheads, charges and profit on 1.3.21 above	%	10000		
CARRIED FORWARD						

## SECTION 1 : SABS 1200 A - GENERAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
		Expanded Public Works Programme (EPWP)				
1.3.23		Allowance for training on targeted labour	Prov. Sum	1	100 000.00	100 000.00
1.3.24		Overheads, charges and profit on 1.3.23 above	%	100000		
1.3.25		Transportation and accomodation of workers for training where it is not possible to undertake in close proximity	Prov. Sum	1	10 000.00	10 000.00
1.3.26		Overheads, charges and profit on 1.3.25 above	%	10000		
1.3.27		Equipment for the Engineer	Prov. Sum	1	150 000.00	150 000.00
1.3.28		Overheads, Charges and Profit on item 1.3.27 above	%	150000		
1.3.29		Allowance for Civil Engineering Student / Trainee	Prov. Sum	1	96 000.00	96 000.00
1.3.30		Overheads, Charges and Profit on item 1.3.29 above	%	96000		
1.3.31		Transportation (including fuel) for the Engineer for the duration of the contract.	Prov. Sum	1	420 000.00	420 000.00
1.3.32		Overheads, Charges and Profit on item 1.3.31 above	%	420000		
1.3.33		Accomodation for the Engineer for the duration of the contract.	Prov. Sum	1	125 000.00	125 000.00
1.3.34		Overheads, Charges and Profit on item 1.3.33 above	%	125000		
1.3.35		Cellphone allowance for the Engineer for the duration of the contract.	Prov. Sum	1	50 000.00	50 000.00
1.3.36		Overheads, Charges and Profit on item 1.3.35 above	%	50000		
	PSA 8.7	DAYWORK (See 8.1.2.1 (d) )				
1.3.37		a) Labour	Prov. Sum	1	100 000.00	100 000.00
1.3.38		Overheads, charges and profit on item 1.3.33 above	%	100000		
1.3.39		b) Materials	Prov. Sum	1	100 000.00	100 000.00
1.3.40		Overheads, charges and profit on item 1.3.35 above	%	100000		
1.3.41		c) Plant	Prov. Sum	1	100 000.00	100 000.00
1.3.42		Overheads, charges and profit on item 1.3.38 above	%	100000		
1.4	8.8	TEMPORARY WORKS (See 8.1.2.1 (d) )				
CARRIED FORWARD						

SECTION 1 : SABS 1200 A - GENERAL

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
1.4.1	8.8.1	Main Access Road to Works (construct and maintain)	Sum	1		
1.4.2	8.8.1	Construct Main Access Road to Completed Reservoir	Sum	1		
1.4.3	PSA 8.8.2	Dealing with traffic	Sum	1		
1.4.4	PSA 8.8.7	Contractor to provide "Construction Record" Information	Sum	1		
1.4.5				0		
TOTAL FOR SECTION 1 CARRIED FORWARD TO SUMMARY						

## SECTION 2 : SABS 1200 C - SITE CLEARANCE (PIPE ROUTE)

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
2.1	8.2.1	Clear and grub (i) Pipeline route (10m wide strip)	m	6550		
2.2	8.2.2	Remove and grub large trees and tree stumps of girth a) over 1 m and up to 2 m	No.	4		
2.3		b) over 2 m and up to 3 m	No.	4		
2.4	8.2.3	Remove and grub all trees and tree stumps regardless of girth	ha	0.125		
2.5	8.2.4	Reclear surfaces (only on instructions from Engineer)	m	100		
2.6	PSC 8.2.5	Take down existing fences	km	0.175		
	8.2.6	Clear hedge or fence or both where not scheduled separately				
2.7		(i) Hedges up to 2m high	m	50		
2.8		(ii) Reinstate Hedge	m	50		
TOTAL FOR SECTION 2 CARRIED FORWARD TO SUMMARY						

SECTION 3 : SABS 1200 D - EARTHWORKS (PIPE ROUTE)

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	8.3.8	Existing Services				
3.1	8.3.8.1	Location c) Excavate by hand in soft material to expose water / telkom / electrical service (LI)	m³	50		
3.2	8.3.10	Topsoiling (i) Pipeline Route	m²	3805		
3.3	8.3.11	Grassing or Vegetation Cover (i) Pipeline Route, outside of canelands	m²	950		
3.4	PSD 8.3.13	Erosion Control Berms	m²	50		
3.5	PSD 8.3.14	Sandbag Protection to pipe trench	No.	50		
3.6	PSD 8.3.15	Extra-over Sandbag Protection for Stabilization	No.	50		
TOTAL FOR SECTION 3 CARRIED FORWARD TO SUMMARY						



SECTION 4 : SABS 1200 DB - PIPE TRENCHES

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	8.3.1	Site Clearance and (if specified) Removal of Topsoil				
4.1	PSDB 8.3.1.C	c) Remove Topsoil				
		(i) 150mm	m <sup>2</sup>	3805		
4.2		(ii) 300mm (within canelands)	m <sup>2</sup>	950		
	8.3.2	Excavation				
		a) Excavate in all materials for trenches, backfill, compact, and dispose of surplus material				
		For pipes:				
		Up to and including 400mm diam. for total trench depth:				
4.3		Over 0 and up to 1m (LI)	m	150		
4.4		Over 1m and up to 2m	m	3770		
4.5		Over 2m and up to 3m	m	25		
		b) Extra-over item (a) above for:				
4.6		1) Intermediate excavation	m <sup>3</sup>	500		
4.7		2) Hard rock excavation	m <sup>3</sup>	85		
4.8		3) Hard rock excavation near residential buildings (Mounted hydraulic breaker where directed by the Engineer)	m <sup>3</sup>	80		
4.9		c) Excavate and dispose of unsuitable material from trench bottom (provisional)	m <sup>3</sup>	640		
4.10	8.3.2(b)	Excavate and dispose of unsuitable material from trench bottom within a 1km radius freehaul (Provisional)	m <sup>3</sup>	160		
	8.3.3	Excavation Ancillaries				
	8.3.3.1	Make up deficiency in backfill material (provisional)				
4.11		a) from other necessary excavations on site	m <sup>3</sup>	237.5		
4.12		c) by importation from commercial or off site sources selected by the Contractor	m <sup>3</sup>	50		
4.13	PSDB 8.3.3.1	d) Stabilised backfill (4% cement)	m <sup>3</sup>	85		
4.14	8.3.3.3	Compaction in road reserves	m <sup>3</sup>	45		
4.15	8.3.3.4	Overhaul				
4.16		a) Limited Overhaul (provisional)	m <sup>3</sup>	250		
4.17		b) Long Overhaul (provisional)	m <sup>3</sup> .km	250		
	8.3.4	Particular Items				
		a) Shore trench opposite structure or service				
4.18		(i) Existing houses and toilet structures	m	25		
CARRIED FORWARD						

## SECTION 4 : SABS 1200 DB - PIPE TRENCHES

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
	8.3.5	Existing Services that Intersect or Adjoin a Pipe Trench				
		a) Services that intersect a trench				
4.19		i) Concrete pipe up to 1000 mm dia.	No.	1.5		
4.20		ii) Water pipe up to 400 mm dia.	No.	2.5		
4.21		iii) Electrical Cables	No.	3.5		
		b) Services that adjoin a trench				
4.22		i) Water pipe up to 400 mm dia.	m	50		
4.23		ii) Telkom Cables	m	10		
4.24		ii) Electrical Cables	m	10		
	8.3.6	Finishing				
	8.3.6.1	Reinstate road surfaces complete with all courses				
4.25		a) Gravel on shoulders and wearing course	m <sup>2</sup>	20		
4.26		c) Asphalt of thickness 30mm in roadway	m <sup>2</sup>	5		
TOTAL FOR SECTION 4 CARRIED FORWARD TO SUMMARY						

## SECTION 5 : SABS 1200 L - MEDIUM-PRESSURE PIPELINES

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	8.2.1	Supply, Lay and Bed Pipes Complete with Couplings				
		250 Diameter Pipes				
5.1		(i) 250mm diam. mPVC CL16 to SABS 966-2	m	1585		
		160 Diameter Pipes				
5.2		(i) 160mm diam. mPVC CL16 to SABS 966-2	m	300		
		110 Diameter Pipes				
5.3		(i) 110mm diam. mPVC CL16 to SABS 966-2	m	1140		
		75 Diameter Pipes				
5.4		(i) 75mm diam. mPVC CL16 to SABS 966-2	m	3515		
	8.2.2	Extra-over 8.2.1 for the Supplying, Laying and Bedding of Specials Complete with Couplings				
		mPVC Double Socketed Bends CL16				
		75 Diameter Pipe Bends				
5.5		(i) 75 mm Ø 11¼° bend	No.	32		
5.6		(ii) 75 mm Ø 22½° bend	No.	2		
		110 Diameter Pipe Bends				
5.7		(i) 110 mm Ø 11¼° bend	No.	7		
5.8		(ii) 110 mm Ø 22½° bend	No.	2		
5.9		(iii) 110 mm Ø 45° bend	No.	1		
		160 Diameter Pipe Bends				
5.10		(i) 160 mm Ø 11¼° bend	No.	2		
5.11		(ii) 160 mm Ø 22½° bend	No.	2		
5.12		(iii) 160 mm Ø 45° bend	No.	2		
		250 Diameter Pipe Bends				
5.13		(i) 250 mm Ø 11¼° bend	No.	16		
5.14		(ii) 250 mm Ø 22½° bend	No.	1		
		Fittings CL16				
5.15		(i) 250 x 160 Ø reducer	No.	1		
5.16		(ii) 250 Ø Equal Tee	No.	1		
5.17		(iii) 110 x 75 Ø reducer	No.	1		
	8.2.3	Extra-over 8.2.1 for the Supplying, Fixing, and Bedding of Valves				
		Isolating Valve assembly complete as per detail on drawing no. PRJ040-CT7-C303				
5.18		i) 250 mm Ø ND, PN16	No.	1		
5.19		ii) 110 mm Ø ND, PN16	No.	1		
CARRIED FORWARD						

## SECTION 5 : SABS 1200 L - MEDIUM-PRESSURE PIPELINES

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
5.20		BROUGHT FORWARD iii) 75 mm Ø ND, PN16 Scour Valve assembly complete as per detail on drawing no. PRJ040-CT7-C302	No.	2		
5.21		(i) 80 mm Ø ND off 75 mm Ø OD mPVC pipe, PN 16	No.	1		
5.22		(ii) 80 mm Ø ND off 110 mm Ø OD mPVC pipe, PN 16	No.	1		
5.23		(iii) 80 mm Ø ND off 250 mm Ø OD mPVC pipe, PN 16 Air Valve assembly complete as per detail on drawing no. PRJ040-CT7-C301	No.	1		
5.24		(i) 25 mm Ø ND, PN 16	No.	11		
5.25		(ii) 50 mm Ø ND, PN 16	No.	3		
5.26		Inlet chamber assembly complete as per drawing no. PRJ040-CT7-C312 i) 160 mm Ø ND, PN16	No	1		
5.27		ii) 75 mm Ø ND, PN16	No	3		
5.28	8.2.11	Anchor / Thrust Blocks and Pedestals as per drawing no. PRJ040-CT7-C306 b) Concrete Grade 25MPa / 19mm	m <sup>3</sup>	26		
5.29		b) Formwork	m <sup>2</sup>	340		
5.30		Reinforced concrete thrust wall complete including excavation, concrete, rough formwork, flanged 1.5m long GMS puddle pipe as per detail drawing including steel to uPVC adaptors for mains testing at each end and every 500m for the following pipe size (concrete to extend both 200mm below invert and above crown of pipes) : (i) 200mm dia mPVC	No	3		
5.31		Reinforced concrete thrust wall complete including excavation, concrete, rough formwork, flanged 1.5m long GMS puddle pipe as per detail drawing including steel to uPVC adaptors for mains testing at each end and every 1400m for the following pipe size (concrete to extend both 200mm below invert and above crown of pipes) : (i) 160mm dia mPVC	No	1		
5.32		(ii) 110mm dia mPVC	No	1		
5.33		(iii) 75mm dia mPVC	No	2		
5.34	8.2.13	Valves and Hydrant Chambers etc Isolating Valve Chamber complete as per detail on drawing no. PRJ040-CT7-C303	No.	4		
5.35		Scour Valve Chambers complete as per detail on drawing no. PRJ040-CT7-C302	No.	3		
CARRIED FORWARD						

## SECTION 5 : SABS 1200 L - MEDIUM-PRESSURE PIPELINES

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
5.36		BROUGHT FORWARD Air Valve Chambers complete as per detail on drawing no. PRJ040-CT7-C301	No.	14		
5.37		Inlet Chamber complete as per detail on drawing no. PRJ040-CT7-C312	No.	4		
5.38	PSL 8.2.16	Supply and install pipeline markers as per detail on drawing no. PRJ040-CT7-C307	No.	65		
5.39	PSL 8.2.17	Supply and install valve markers as per detail on drawing no. PRJ040-CT7-C307	No.	25		
5.40		Sundry Items Supply, lay, bed and install concrete pipe sleeves for road crossings, inclusive of all items (viz. skids etc) necessary for pipe support through sleeve as per drawing No... Class 100D, Spigot and Socket type as per drawing no. PRJ040-CT7-C3 for:  (ii) 600 mm ND Concrete Sleeve for 215 mm ND mPVC pipe	m	50		
TOTAL FOR SECTION 5 CARRIED FORWARD TO SUMMARY						

SECTION 6 : SABS 1200 LB - BEDDING: (PIPES)

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
	8.2.1	Supply only of Bedding from Trench Excavation within 0.5km				
6.1		a) Selected granular material	m³	82.8883...		
6.2		b) Selected fill material	m³	49.690264		
	8.2.2	Supply only of Bedding by Importation				
	8.2.2.3	From commercial sources (Provisional)				
6.3		a) Selected granular material	m³	745.995...		
6.4		b) Selected fill material	m³	447.212...		
6.5		c) 19mm graded crushed stone	m³	600		
6.6	8.2.3	Concrete Bedding Cradle	m³	20		
	8.2.4	Encasing of Pipes in Concrete				
6.7		(i) Grade 25 MPa / 19 mm concrete	m³	7.5		
6.8	8.2.5	Overhaul of Material for Bedding Cradle and Selected Fill Blanket	m³.km	600		
TOTAL FOR SECTION 6 CARRIED FORWARD TO SUMMARY						

SECTION 7 : BOREHOLE DEVELOPMENT

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
7.1		Borehole Developments Including Pump House with concrete roof slab, Diesel Generator, Equiping the BH, Pump, all Mechanical and electrical components installed complete with pump controls, including geohydrological assesments, driling and all relevant testing with reports.	ProvSum	1	2 000 000.00	2 000 000.00
TOTAL FOR SECTION 7 CARRIED FORWARD TO SUMMARY						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.1	SABS 1200 C 8.2.1					
8.1.1	PSC 3.1 PSDB 8.3.1.2	Clear and grub site	m <sup>2</sup>	600		
	8.2.2	Remove and grub large trees and tree stumps of girth				
8.1.2	a)	over 0,5m and up to and including 1m	No	3		
8.1.3	b)	over 1m and up to and including 2m	No	2		
8.1.4	c)	over 1m and up to and including 2m	No	2		
		Remove and stockpile topsoil				
8.1.5	8.2.10 PSC 3.1 PSDB 8.3.1.C	Remove topsoil to a depth of 200 mm prior to carrying out bulk excavation below reservoir, stockpile and maintain for further use	m <sup>2</sup>	400		
8.2	SABS 1200 D PSD	Bulk Excavation				
		Open face excavation in all materials over site				
8.2.1	8.3.2	Excavate in all materials from natural ground level to desired platform level and stockpile for later use and maintain for backfill and dispose of the remainder to an approved spoil site (including shaping to be free-draining and with embankment slopes shallower than 1:3 and compacting)	m <sup>3</sup>	1125		
	8.3.2 b	Extra over for items 3.1.1				
8.2.2	8.3.2 b.1	Intermediate excavation	m <sup>3</sup>	150		
8.2.3	8.3.2 b.2	Hard rock excavation	m <sup>3</sup>	50		
8.2.4	8.3.2 b.3	Boulder excavation Class A	m <sup>3</sup>	150		
		Excavation within particular sections to form platform for soil raft				
8.2.5		Excavate in all materials, to grade level, and stockpile for later use and maintain for backfill and dispose of the remainder to an approved spoil site (including shaping to be free-draining and with embankment slopes shallower than 1:3 and compacting)	m <sup>3</sup>	200		
	8.3.2 b	Extra over for items 3.1.1				
8.2.6	8.3.2 b.1	Intermediate excavation	m <sup>3</sup>	20		
8.2.7	8.3.2 b.2	Hard rock excavation	m <sup>3</sup>	10		
8.2.8	8.3.2 b.3	Boulder excavation Class A	m <sup>3</sup>	20		
	8.3.3	Restricted Excavation				
		Excavate in all materials and use for backfill or embankments or dispose, as ordered for: (Free haul 0.5km )				
CARRIED FORWARD						



## SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
8.2.9		Shear pads	m <sup>3</sup>	20		
8.2.10		Under floor drains	m <sup>3</sup>	70		
8.2.11		Chambers	m <sup>3</sup>	150		
8.2.12		1m wide V-Drain around platform	m <sup>3</sup>	30		
8.2.13	8.3.2 b.1	Intermediate excavation	m <sup>3</sup>	10		
8.2.14	8.3.2 b.2	Hard rock excavation	m <sup>3</sup>	5		
	8.3.4	Imported Geo-fill below floor slab as directed.				
8.2.15		Import, place and compact in individual layers "G5" material to form Geo-fill below floor slab as directed by the engineer. Fill to be placed in layers typically 200 mm thick when loose and compacted to 95% Modified AASHTO dry density at O.M.C.	m <sup>3</sup>	195		
8.2.16		Import, place and compact in individual layers "G2" material stabilised with 3% cement to form Geo-fill below floor slab as directed by the engineer. Fill to be placed in layers typically 200 mm thick when loose and compacted to 95% Modified AASHTO dry density at O.M.C.	m <sup>3</sup>	85		
8.2.17		Rip and recompact 150mm layer insitu material, stabilised with 2% lime and compact to 95% mod. Aashto dry density at O.M.C. below floor slab as directed by the engineer.	m <sup>2</sup>	280		
	8.3.9	Backfill to reservoir				
		Backfill and compact with material from excavations ( stockpile previously set aside )				
8.2.18		Around chambers to 95% Modified AASHTO	m <sup>3</sup>	120		
8.2.19		Below natural ground level and around reservoir to 95% Modified AASHTO	m <sup>3</sup>	150		
8.2.20		Banks against walls, etc. executed concurrently with water filling to reservoir in layers not exceeding 200 mm compacted to 93% Modified AASHTO	m <sup>3</sup>	150		
	8.3.8	Existing Services				
8.2.21	8.3.8.1 c	Excavate by hand in soft material to expose existing services	m <sup>3</sup>	30		
	8.3.11	Grassing and ground covers				
8.2.22		Planting and maintaining of kikuyu grass until established	m <sup>2</sup>	300		
		Trimming				
8.2.23		Machine trimming	m <sup>2</sup>	150		
8.2.24		Hand trimming	m <sup>2</sup>	150		
CARRIED FORWARD						

## SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
		Preparing the area for grassing				
8.2.25		Ripping	m <sup>2</sup>	150		
8.2.26		Ploughing to loosen topsoil	m <sup>2</sup>	150		
	8.3.10	Top soiling				
8.2.27		Topsoil obtained from stockpile	m <sup>2</sup>	300		
		Providing and applying chemical fertilisers and / or soil improvement material				
8.2.28		Lime	kg	50		
8.2.29		Superphosphate	kg	50		
8.2.30		2 : 3 : 2	kg	50		
		Planting and establishing				
8.2.31		Trees	No	5		
8.2.32		Shrubs	No	10		
8.3	SABS 1200G & PSG					
		Unreinforced Concrete				
	PSG 7.2.6	Concrete 15Mpa / 26mm				
8.3.1	8.4.3	No fines under floors minimum 125 mm thick	m <sup>2</sup>	275		
8.3.2	8.4.2	Blinding layer minimum 75 mm thick	m <sup>2</sup>	300		
8.3.3		Mass concrete to subsoil drain encasement	m <sup>3</sup>	10		
8.3.4		Mass concrete to pipe encasement	m <sup>3</sup>	25		
	8.4.3	Concrete 20Mpa / 19mm				
8.3.5		Shear pads	m <sup>3</sup>	18		
8.3.6		Concrete aprons to be cast in alternate panels around reservoir	m <sup>3</sup>	12		
	8.4.3 PSG 5.5.11 PSG 7.2.6	Reinforced Concrete				
		Concrete 30Mpa / 19mm				
		Chambers				
8.3.7		Floor slab	m <sup>3</sup>	12		
8.3.8		Walls	m <sup>3</sup>	75		
8.3.9		Roof slab	m <sup>3</sup>	12		
8.3.10		Plinths and Thrust blocks	m <sup>3</sup>	10		
		35 Mpa/19mm Concrete				
		Reservoir				
8.3.11		Wall base including kickers	m <sup>3</sup>	70		
CARRIED FORWARD						

## SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
8.3.12		Floor slab, scour sump and column base including kickers	m <sup>3</sup>	55		
8.3.13		Column bases	m <sup>3</sup>	10		
8.3.14		Columns including column head	m <sup>3</sup>	6		
8.3.15		Walls	m <sup>3</sup>	180		
8.3.16		Roof slab including manhole upstand beam ( 1200 x 600 )	m <sup>3</sup>	78		
	8.2 PSG 8.1.1	Formwork				
	8.2.1	Rough vertical:				
8.3.17		Chamber walls	m <sup>2</sup>	235		
	8.2.2	Smooth vertical				
8.3.18		Reservoir wall	m <sup>2</sup>	1100		
8.3.19		Internal face of manhole upstand in roof slab (1200 x 600 )	m <sup>2</sup>	2		
8.3.20		Chamber walls	m <sup>2</sup>	215		
8.3.21		Plinths and Thrust blocks	m <sup>2</sup>	30		
8.3.22		400mm Diameter column approx. 5m high overall with cone shaped, cap 1200mm dia. At top and 475mm high overall, with the top 50mm of cap vertical	No	4		
		Smooth horizontal				
8.3.23		Roof slab to inside face of reservoir wall (propped at 8.0m)	m <sup>2</sup>	265		
8.3.24		Chamber roof slabs (propped at exc. 3.0m but n.e 4.5m)	m <sup>2</sup>	40		
	8.2.5	Narrow widths				
		Reservoir				
8.3.25		400mm Internal edge of wall base	m	50		
8.3.26		400mm External edge of wall base	m	880		
8.3.27		250mm Edge of column bases	m	30		
8.3.28		200mm Internal edge of wall kicker	m	60		
8.3.29		200mm External edge of wall kicker	m	60		
8.3.30		400mm thick Floor slab at construction joints (one side measured only)	m	60		
8.3.31		350mm Outside face of upstand at permanent access opening in roof slab	m	6		
8.3.32		410mm Outside face of inverted beam / roof slab	m	60		
8.3.33		210mm Inside face of inverted beam at roof slab	m	60		
CARRIED FORWARD						

## SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.3.34		BROUGHT FORWARD 20 x 20 mm chamfer to top of Ring beams and upstand to manhole.	m	130		
8.3.35		600mm Inside face of upstand at permanent access opening in roof slab	m	4		
8.3.36		400mm Inside face of scour sump	m	3		
8.3.37		600mm Outside face of scour sump	m	4		
	8.2 PSG 8.1.1	Formwork Sundries				
		Box out holes or form voids in:				
8.3.38		400 mm thick floor slab for 150 mm diameter overflow line ( 600 mm x 600 mm opening )	No	1		
8.3.39		400 mm thick floor slab for 150 mm diameter inlet line ( 600 mm x 600 mm opening )	No	1		
8.3.40		400 mm thick floor slab for 300 mm diameter outlet line ( 500 mm x 500 mm opening )	No	1		
8.3.41		400 mm thick floor slab for 150 mm diameter scour line ( 250 mm x 250 mm opening )	No	1		
8.3.42		Chambers				
8.3.43		200mm Inner face of manhole opening	m	25		
8.3.44		300mm Edge of floor slab	m	60		
	PSG 8.17	Bond breakers				
8.3.45		250 micron Upvc sheeting under floors (measured nett) inclusive of 250mm overlap and appropriate tape / weld.	m <sup>2</sup>	350		
	8.3	Reinforcement				
8.3.46	8.3.1	Mild steel bars		0		
8.3.47		8mm	t	0.3		
8.3.48		10mm	t	0.2		
	8.3.1	High-tensile steel bars				
8.3.49		10mm	t	0.5		
8.3.50		12mm	t	10		
8.3.51		16mm	t	14		
8.3.52		20mm	t	2		
	8.4.4	Unformed Surface finishes				
	8.4.4 a PSG 5.5.10.2	Wood floated finish (to degree of accuracy II)				
8.3.53		Reservoir roof slab including top of ring beam and manhole walls	m <sup>2</sup>	280		
CARRIED FORWARD						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
8.3.54	8.4.4 b PSG 5.5.10.3	Steel floated finish (to degree of accuracy II)				
		Shear pads	m <sup>2</sup>	35		
8.3.55		Chamber floor and roof slabs	m <sup>2</sup>	80		
8.3.56		Top of column base	m <sup>2</sup>	12		
8.3.57	8.4.4 c	Power floated finish (to degree of accuracy II)				
		Reservoir floor slab	m <sup>2</sup>	220		
8.3.58	PSG 5.5.10.4	Screeds				
		Average 100mm thick 1:4 sand cement screed to chamber floors	m <sup>2</sup>	50		
8.3.59	8.5 PSG 3.11.2 PSG 5.5.7 PSG 8.5	Joints				
		Joints in reservoir floor including all materials, formwork, sealants, bandages, etc.as detailed on drawings.				
		Reference type F1	m	50		
8.3.60		Reference type F2	m	30		
8.3.61		Reference type F3	m	30		
8.3.62		Construction joint in reservoir sump as detailed				
		Reference Type S1	m	3		
8.3.63		Reference Type S2	m	3		
8.3.64		Joints in reservoir wall including all materials, formwork, sealants, bandages, etc. all as detailed on the drawings.				
		Reference type W1	m	60		
8.3.65		Reference type W2	m	60		
8.3.66	PSG 8.18	Reference Type W3	m	60		
		Concrete Sundries				
8.3.67	PSG 7.2.5 PSG 8.15	Testing				
		Testing of new reservoir for Water tightness in accordance with the specification.	Sum	1		
8.3.68		Sterilising of new reservoir in accordance with the specification	Sum	1		
	PSG 5.5.8	Curing and Protection using Water or an approved curing compound				
		Reservoir				
CARRIED FORWARD						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
		BROUGHT FORWARD				
8.3.69		bases	m <sup>2</sup>	170		
8.3.70		floor slab	m <sup>2</sup>	175		
8.3.71		walls	m <sup>2</sup>	580		
8.3.72		Columns including column head	m <sup>2</sup>	8		
8.3.73		roof slab	m <sup>2</sup>	280		
8.3.74		Scour sump	m <sup>2</sup>	3		
		Chambers				
8.3.75		floor slab	m <sup>2</sup>	50		
8.3.76		walls	m <sup>2</sup>	385		
8.3.77		roof slab	m <sup>2</sup>	50		
8.4	SABS 1200 DB					
	8.3.2	Excavation				
8.4.1	8.3.1 c	Remove topsoil to a depth of 300 mm along pipe trench and stockpile separate from remainder of excavated material	m <sup>3</sup>	120		
		Excavate in all materials for trenches, backfill and compact to 95% Mod AASHTO and dispose of surplus and unsuitable material for pipe not exceeding 300mm internal diameter				
8.4.2		Exceeding 1.0m but not exceeding 2.0m deep	m <sup>3</sup>	730		
8.4.3		Exceeding 2.0m but not exceeding 3.0m deep	m <sup>3</sup>	280		
	8.3.2 b	Extra over for item 5.1.1:				
8.4.4	8.3.2 b.1	Intermediate excavation	m <sup>3</sup>	100		
8.4.5	8.3.2 b.2	Hard rock excavation	m <sup>3</sup>	100		
8.5	SABS 1200 L & PB					
		Medium-Pressure Pipelines				
	PSG 5.5.16	Reservoir Pipework				
		Inlet Pipework				
	8.2.5	Supply, handle, lay and install stainless steel, galvanised & uPVC pipes and fittings in reservoir and precast chamber, including making good coating and lining all as detailed on drawings				
CARRIED FORWARD						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.5.1		BROUGHT FORWARD 150 N.B x 2 250 F/F, S/S PIPE, PLAIN ENDED AT ONE END AND FLANGED AT THE OTHER. Item 1	No	1		
8.5.2		150 N.B. S/S. 90°, MEDIUM RADIUS BEND, PLAIN ENDED, Item 2. ( WELDED TO ITEM No. 1 ).	No	2		
8.5.3		150 N.B. x 1450 F/F, S/S PUDDLE PIPE, FLANGED ONE END AND PLAIN ENDED THE OTHER. PUDDLE FLANGE 450mm FROM PLAIN END, ITEM 3. ( WELDED TO ITEM No. 2 )	No	1		
8.5.4		150 N.B. x 6750 F/F S/S PIPE. BOTH ENDS FLANGED. . ITEM 4	No	1		
8.5.5		150 N.B S/S 90°, SHORT RADIUS BEND, FLANGED. ITEM 5	No	1		
8.5.6		150mm BALEM PISKET LEVEL CONTROL VALVE, REF. 431 (HORIZONTAL MOUNT) OR SIMILAR APPROVED. ITEM 6 WITH S/S PILOT LINE AND VALVE.	No	1		
8.5.7		Supply and fix holder bat brackets for 150 mm NB pipes as per drawings	No	10		
	8.2.5	Outlet Pipework Supply, handle, lay and install stainless steel, galvanised & uPVC pipes and fittings in reservoir and precast chamber, including making good coating and lining all as detailed on drawings				
8.5.8		300 N.B x 150mm S/S BELLMOUTH, WELDED TO 300 N.B x 1150mm S/S STRAIGHT PIECE WITH PUDDLE FLANGE 300mm FROM BELLMOUTH END. ITEM 7 (WELDED TO ITEM No. 08)	No	1		
8.5.9		300 N.B S/S 90°, MEDIUM RADIUS BEND,PLAIN ENDED. ITEM 8 (WELDED TO ITEM No. 09)	No	1		
8.5.10		300 N.B. x 2 450 F/F, S/S PIPE ONE END PLAIN ENDED WITH THE OTHER FLANGED. ITEM 9.	No	1		
	8.2.5	Overflow Pipework Supply, handle, lay and install stainless steel, galvanised & uPVC pipes and fittings in reservoir and precast chamber, including making good coating and lining all as detailed on drawings				
CARRIED FORWARD						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.5.11		BROUGHT FORWARD 200 N.B x 100mm S/S BELLMOUTH, WELDED TO 150 N.B x 8125mm S/S STRAIGHT PIECE, BOTH ENDS PLAIN ENDED. WITH PUDDLE FLANGE 920mm FROM END, . ITEM 13. (WELDED TO ITEM No. 14)	No	1		
8.5.12		150 N.B. S/S, 90° MEDIUM RADIUS BEND, PLAIN ENDED. ITEM 14 ( WELDED TO ITEM No. 15 )	No	1		
8.5.13		150 N.B x 2 350 F/F, S/S PIPE, PLAIN ENDED AT ONE END AND FLANGED AT THE OTHER. Item 15  Scour Outlet	No	1		
	8.2.5	Supply, handle, lay and install stainless steel, galvanised & uPVC pipes and fittings in reservoir and precast chamber, including making good coating and lining all as detailed on drawings				
8.5.14		200N.Bx150N.B x 700 F/F, S/S BELLMOUTH, Item 10 (WELDED TO ITEM No. 11)	No	1		
8.5.15		150 N.B. S/S, 90° MEDIUM RADIUS BEND, PLAIN ENDED., Item 11. ( WELDED TO ITEM No. 12 )	No	2		
8.5.16		150 N.B x 4 700 F/F, S/S PIPE, PLAIN ENDED AT ONE END AND FLANGED AT THE OTHER. ITEM 12.	No	1		
	8.2.1	Discharge from Scour Chambers to Headwall: Supply, handle, lay, joint, bed and test the following series for uPVC pipes and joints.				
8.5.17		355mm x 3 000mm "CLASS 12" uPVC PIPE. (marked item 39)	No	1		
8.5.18		355mm uPVC, 22.50 UPVC ELBOW. (marked item 40)	No	5		
8.5.19		355mm x 64 000mm "CLASS 12" uPVC PIPE. (marked item 41)	No	1		
8.5.20		355mm uPVC, 900 UPVC ELBOW. (marked item 52)	No	5		
8.5.21		355mm x 50 000mm "CLASS 12" uPVC PIPE. (marked item 53)	No	1		
8.5.22		Construct new headwall including energy dissipators and scour protection for scour and overflow pipelines as per Drawings	Sum	1		
	SABS 1200 DK	Gabions and Pitching, Supply and fix gabion baskets for scour protection				
8.5.23	8.2.2	Supply and lay uPVC reno mattress to scour chamber as per Drawing No. 338	m <sup>2</sup>	32		
CARRIED FORWARD						



## SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.5.24		BROUGHT FORWARD Supply and place 19mm concrete stone to form stone pitching from 300mm half round channels to bottom of bank, as directed by engineer on site.	m <sup>3</sup>	10		
8.5.25	8.2.2	2.0 x 4.0 x 0.3 thk. Reno mattress laid on scour trench to support gabion baskets in accordance with drawing.	No.	4		
8.5.26	8.2.2	2.0 x 1.0 x 0.3 thk. reno mattress laid on scour trench to support gabions baskets in accordance with drawing.	No.	6		
8.5.27	8.2.2	1.0m wide x 1.0m long x 1.0m high gabion baskets laid on reno mattress all in accordance with drawing.	No.	20		
8.5.28	8.2.2	Supply and lay hand stone to reno mattress in accordance to manufacturers instructions.	m <sup>3</sup>	26		
8.5.29	8.2.2	Supply and lay hand stone to gabion baskets in accordance to manufacturers instructions	m <sup>3</sup>	20		
8.5.30	8.2.2	2.0 x 1.0 x 0.3 thk. reno mattress laid in scour and overflow chamber in accordance with drawing.	No.	1		
8.5.31		Precast Concrete Channels Supply, bed, lay and joint 300 mm diameter half round channels at downpipes from reservoir roof	m	50		
8.6	SABS 1200 HA	SUNDRY STEELWORK				
		Access Ladders				
	8.3.3	Stainless steel access ladder fabricated to details on Drawing and fixed to inner face of reservoir and floor with M16 stainless steel Hilti H.K.B Kwik-bolts 100 mm in length. Rate to include 50x8 stainless steel flat cage hoops				
8.6.1		Overall length 7.6m long	No	1		
	8.3.3	Galvanised steel access ladder fabricated to details on Drawing and fixed to external face of reservoir walls with M16 galvanised steel Hilti H.K.B Kwik-bolts 100 mm in length. Rate to include 50x8 stainless steel flat cage hoops				
8.6.2		Overall length 4m long	No	1		
8.6.3		900mm Galvanised handrail fabricated to details on Drawing and fixed to reservoir roof slab with M12 galvanised steel Hilti H.K.B Kwik-bolts 100 mm in length	No	1		
	PSG 8.16	MANHOLE COVERS AND FRAMES				
CARRIED FORWARD						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.6.4		BROUGHT FORWARD Manhole cover to 700 x 1000 mm opening all as detailed on Drawings with frame anchors cast into and frame bolted to concrete slab with galvanised bolts as specified.	No	1		
8.6.5		Manhole cover to 900 x 1200 mm opening all as detailed on Drawings with frame anchors cast into and frame bolted to concrete slab with galvanised bolts as specified.	No	4		
8.6.6		STAINLESS STEEL VENTILATION PIPES Fabricate and install air ventilators to details on Drawings	No	4		
8.6.7		Fabricate and install air ventilators as per Drawings that extended through roof of chamber with 100 mm dia. Class 6 uPVC pipe as detailed and fixed to sides of walls with stainless steel brackets and M10 Hilti s/s HSL heavy duty anchors 75 mm long for chambers with depths: 2.1 m deep Pipe Support Brackets	No	3		
8.6.8		Supply, fabricate and install pipe support brackets as per Drawing Nos. 336	No	7		
8.6.9		ALUMINIUM SIGNBOARD AND NUMBER PLATES Fabricate and install signboard and number plates and paint details to colours specified. As detailed on Drawings				
8.6.10		500 mm x 500 mm Signboard fixed to wall	No	10		
8.7		Number plates	No	14		
8.7.1		Subsoil Drainage Supply, handle, lay and bed "110mm Diameter Slotted Agricultural" pipes in trench ( trench excavation measured elsewhere ) 110mm Diameter slotted Agricultural pipes below reservoir floor	m	50		
8.7.2		110mm Diameter slotted Agricultural pipes around reservoir wall base forming sidewall drain.	m	50		
8.7.3		Extra over "Slotted Agricultural" pipes for 100 mm x 45 degree bend	No	20		
8.7.4		Extra over "Slotted Agricultural" pipes for 100 mm x 90 degree bend	No	14		
CARRIED FORWARD						

## SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.7.5		BROUGHT FORWARD In concrete encasement below reservoir wall base	m	18		
8.7.6		Supply and place 6mm concrete stone in drainage trench under reservoir floor	m <sup>3</sup>	40		
8.7.7		Supply and install A4 Bidum above drain	m <sup>2</sup>	100		
8.7.8		Supply and install 250 micron uPVC membrane below and to sides of drain	m <sup>2</sup>	150		
8.7.9		Supply and install A4 Bidum around sidewall drain	m <sup>2</sup>	200		
8.8		Roof Drainage Pipes and Scuppers				
8.8.1		Supply, deliver, hoist and place 25 mm washed stone on reservoir roof slab	m <sup>3</sup>	30		
8.8.2		450 mm long 75 mm diameter Class 4 uPVC pipe cast into concrete upstand beam with one end fitted with 3CR12 stainless steel bird mesh and tightly secured to the roof slab upstand beam	No	4		
8.8.3		75 mm dia. Class 4 vertical drain pipe fixed to horizontal pipe, including all necessary couplings fixed to walls of reservoir with holder bat brackets	m	30		
8.8.4		Extra over Class 4 uPVC pipes for : 75 mm x 90 degree bends	No	8		
8.8.5		7 mm x 45 degree bends	No	4		
8.8.6		75 mm "T" connection	No	2		
8.8.7		75 mm Shoe	No	4		
8.8.8		110 mm x 75 mm reducing square junctions	No	5		
8.8.9		Drainage Pipe in Floor 300 mm diameter x 700 mm long uPVC drainage pipe cast vertically 100 mm deep into and including 15Mpa / 19 mm concrete base size 500 x 500 x 200 mm thick including necessary excavation, formwork and backfilling and other end cast through 300 mm thick concrete floor slab.	No	4		
8.9	SABS 1200 H	FENCING				
8.9.1		Supply and install 2.1m HIGH x 3mm high density welded ripper razor meshed fence with 500mm dia. "flat wrap" fencing around the reservoir as illustrated on drawings. Rate to Include corner, straining and intermediate posts and all materials necessary(3 quotes form local contractors to be arranged)	m	110		
CARRIED FORWARD						

SECTION 8 : 1.5ML DUMASI RESERVOIR

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
8.9.2		<p>BROUGHT FORWARD</p> <p>Supply and install 2.1m HIGH x 3mm high density welded ripper razor x 6m wide meshed driveway gate fence as illustrated on drawings. Rate to Include gate posts and all materials necessary. (3 quotes form local contractors to be arranged)</p>	No	1		
TOTAL FOR SECTION 8 CARRIED FORWARD TO SUMMARY						

SECTION 9 : SUBCONTRACTOR'S SCOPE

ITEM	PAYMENT REFERS	DESCRIPTION	UNIT	QUANTITY	RATE R	AMOUNT R
9.1	C3.3.2.1	Scope of mandatory subcontract works	Sum	1	7 060 000.00	7 060 000.00
TOTAL FOR SECTION 9 CARRIED FORWARD TO SUMMARY						

SECTION	DESCRIPTION	AMOUNT R
1	SABS 1200 A - GENERAL	R
2	SABS 1200 C - SITE CLEARANCE (PIPE ROUTE)	R
3	SABS 1200 D - EARTHWORKS (PIPE ROUTE)	R
4	SABS 1200 DB - PIPE TRENCHES	R
5	SABS 1200 L - MEDIUM-PRESSURE PIPELINES	R
6	SABS 1200 LB - BEDDING: (PIPES)	R
7	BOREHOLE DEVELOPMENT	R
8	1.5ML DUMASI RESERVOIR	R
9	SUBCONTRACTOR'S SCOPE	R
A	NETT TOTAL OF TENDER	R
B	ADD CONTINGENCIES 10.0% OF NETT TOTAL	R
C	TENDER AMOUNT	R
D	ALLOWANCE FOR CONTRACT PRICE ADJUSTMENT	R
E	ALLOWANCE FOR VAT AT 15.0%	R
F	TOTAL TENDER SUM	R