

SECTION A: PRELIMINARY & GENERAL

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION A: PRELIMINARY AND GENERAL				
A.1	SANS 1200 A	<u>GENERAL</u>				
A.1.1	8,3	FIXED-CHARGE ITEMS				
A.1.1.1	8.3.1	Contractual Requirements	Sum			0,00
	8.3.2	Establish Facilities on the Site :				
	8.3.2.1	Facilities for Employer's Agent				
A.1.1.2	8.3.2.1 a)	Office	Sum			0,00
	8.3.2.2	b) Facilities for Contractor				
A.1.1.3	a)	Offices and storage sheds	Sum			0,00
A.1.1.4	b)	Workshops	Sum			0,00
A.1.1.5	d)	Living accomodation				
A.1.1.6	e)	Ablution and latrine facilities	Sum			0,00
A.1.1.7	f)	Tools and equipment	Sum			0,00
A.1.1.8	g)	Water supplies, electric power and communications	Sum			0,00
A.1.1.9	h)	Dealing with water (Subclause 5.5)	Sum			0,00
A.1.1.10	i)	Access (Subclause 5.8)	Sum			0,00
A.1.1.11		Pollution (Subclause 5.6)	Sum			0,00
A.1.1.12	8.3.3	Other fixed-charge obligations	Sum			0,00
A.1.1.13	8.3.4	Remove Employer's Agent's and Contractor's Site establishment on completion	Sum			0,00
A.1.2	C 5.1	HEALTH AND SAFETY				
A.1.2.1	a)	Preparation of Health and Safety Plan	Sum			0,00
A.1.2.2	b)	Health and Safety Training	Sum			0,00
A.1.2.3	c)	Personal Protective Clothing and Equipment	Sum			0,00
A.1.2.4	d)	Fences, Signs and Barricades	Sum			0,00
A.1.2.5	e)	Establishment of Safety Administration	Sum			0,00

TOTAL CARRIED FORWARD	0,00
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SECTION A: PRELIMINARY & GENERAL

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
A.1.2.6	f)	Other Health and Safety Fixed-charge Obligations	Sum			0,00
A.1.3	8,4	TIME-RELATED ITEMS				
A.1.3.1	8.4.1	Contractual Requirements	Month	8		0,00
	8.4.2	Operate and maintain facilities on the Site:				
	8.4.2.1	a) Facilities for Employers' Agent for duration of construction				
A.1.3.2	a)	Office	Month	8		0,00
	8.4.2.2	Facilities for Contractor for duration of construction, except where otherwise stated				
A.1.3.3	a)	Offices and storage sheds	Month	8		0,00
A.1.3.4	b)	Workshops	Month	8		0,00
A.1.3.5	e)	Ablution and latrine facilities	Month	8		0,00
A.1.3.6	f)	Tools and equipment	Month	8		0,00
A.1.3.7	g)	Water supplies, electric power and communications	Month	8		0,00
A.1.3.8	h)	Dealing with water (Subclause 5.5)	Month	8		0,00
A.1.3.9	i)	Access (Subclause 5.8)	Month	8		0,00
A.1.3.10		Pollution(Subclause 5.6)	Month	8		0,00
A.1.3.11	8.4.4	Company and head office overhead costs	Month	8		0,00
A.1.3.12	8.4.5	Other time-related obligations	Month	8		0,00
A.1.4	C 5.1	HEALTH AND SAFETY				
A.1.4.1	a)	Implementation and maintenance of Health and Safety Plan	Month	8		0,00
A.1.4.2	b)	Provision of Construction Safety Officer(s)	Month	8		0,00
A.1.4.3	c)	Implementation and maintenance of Training	Month	8		0,00
A.1.4.4	d)	Maintenance of Personal Protective Clothing and Equipment	Month	8		0,00

TOTAL CARRIED FORWARD							0,00
SECTION A: PRELIMINARY & GENERAL							
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TOTAL BROUGHT FORWARD							0,00
A.1.4.5	e)	Maintenance of Fences, Signs and Barricades	Month	8			0,00
A.1.4.6	f)	Implementation and maintenance of Safety Administration	Month	8			0,00
A.1.4.7	g)	Other Health and Safety Time-related Obligations	Month	8			0,00
A.1.4.8	h)	Submission of Health and Safety File	Month	8			0,00
A.1.5		MAINTAIN QUALITY CONTROL					
A.1.5.1		Contractor must submit a detailed quality control plan for the construction of the project. The document must be in the file format and must be approved by the Employers Agent.	Month	8			0,00
A.1.6		STANDING TIME					
		Standing time costs will be subject to the General Conditions of Contract 3rd Edition, 2015. All standing time for plant and labour must be recorded in the daily site diary and all claims must be related to the approved contract program and relevant plant and labour that is utilised on site. Charges for delays due to factors beyond the control of the contractor, for all plant, labour, management and overhead costs, but excluding delays due to delivery of materials for the following:					
A.1.6.1		a) All plant	sum/day	1			Rate Only
A.1.6.2		b) All labour	sum/day	1			Rate Only
A.1.7	8,5	SUMS STATED PROVISIONALLY BY EMPLOYER'S AGENT					
A.1.7.1		Specified Soil testing as order by Employer's Agent at approved laboratory	PC	1	100 000		100 000,00
A.1.7.2		Extra over 1.7.1 for profit, administration etc.	%	100 000			0,00
		For work to be done by approved sub-contractors					
A.1.7.3		For emergency repairs to be undertaken on existing services by approved plumber	PC	1	150 000		150 000,00
A.1.7.4		Extra over 1.7.3 for profit, administration etc.	%	150 000			0,00

TOTAL CARRIED FORWARD						250 000,00
SECTION A: PRELIMINARY & GENERAL						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						250 000,00
A.1.7.5		For emergency repairs to be undertaken on existing services by approved electrician	PC	1	50 000	50 000,00
A.1.7.6		Extra over 1.7.5 for profit, administration etc.	%	50 000		0,00
		For work to be done by approved sub-contractors				
		Allow for provisional sum for detection of existing services.				
A.1.7.7		Water	PC	1	30 000,00	30 000,00
A.1.7.8		Sewer	PC	1	30 000,00	30 000,00
A.1.7.9		Stormwater	PC	1	30 000,00	30 000,00
A.1.7.10		Effluent	PC	1	50 000,00	50 000,00
A.1.7.11		Overhead, charges and profit on items 1.7.7 to 1.6.10	%	140 000		0,00
A.1.8	8.7	DAY WORKS				
		Personnel				
A.1.8.1		a) Unskilled labour	h	48		0,00
A.1.8.2		b) Semi-skilled labour	h	48		0,00
A.1.8.3		c) Skilled labour	h	48		0,00
A.1.8.4		d) Ganger	h	30		0,00
		Plant				
A.1.8.5		a) 10ton crane	h	24		0,00
A.1.8.6		b) Excavator (92kW)	h	32		0,00
A.1.8.7		c) Tractor-loader-backhoe (55kW)	h	24		0,00
A.1.8.8		d) Pedestrian vibrating roller (0,5 ton)	h	24		0,00
A.1.8.9		e) Self propelled vibrating roller (80 kW)	h	24		0,00
A.1.8.10		f) Pedestrian vibrating roller (1,4 ton)	h	24		0,00
A.1.8.11		g) Water spray truck (7 000ℓ)	h	24		0,00
A.1.8.12		h) 10m ³ tip truck	h	24		0,00

TOTAL CARRIED FORWARD						440 000,00
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ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						440 000,00
A.1.8.13		l) Skid steer loader	h	24		0,00
A.1.8.14		j) 250 cfm compressor (7m ³ /min) complete with 2 tools and operators	h	32		0,00
		Transport				
A.1.8.15		a) LDV	km	120		0,00
A.1.8.16		b) Flatbed truck	km	60		0,00
A.1.8.17		c) Lowbed transport of plant	km	60		0,00
A.1.9	8,8	TEMPORARY WORKS				
A.1.9.1	8.8.1	Construct and maintain main access road to works for the duration of the contract	Sum			0,00

TOTAL CARRIED FORWARD TO SUMMARY						440 000,00
SECTION B: EARTHWORKS						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
B.1	SANS 1200 C	SECTION B: EARTHWORKS				
		<u>SITE CLEARANCE</u>				
		CLEAR SITE				
	8.2.7	Dismantle and remove pipelines irrespective of pipe material for diameters (Excavation measured elsewhere):				
B.1.1		Up to and including 315mm	m	2 000		0,00
B.1.2	PSC 8.2.5	Take down section of existing perimeter fence and reposition as indicated on DWG R21-097-00-003	m	40		0,00
	8.2.8	Demolish and remove reinforced concrete structures and dispose of at designated disposal site for the following:				
B.1.3		Inlet culvert and spillway to Primary and Secondary dam as per DWG R21-097-00-003. Includes treating exposed reinforcement with corrosion protection and plastering.	Sum	1		0,00
B.1.4		Primary dam pump base	Sum	1		0,00
B.1.5		Embankment stairs	Sum	1		0,00
B.1.6		Existing stormwater drains	Sum	1		0,00
B.1.7		Modifications to existing Secondary dam reinforced concrete pump platform. Fabricate 500mm wide opening in wall for full height of wall as indicated on DWG. R21-097-00-204. Including treating exposed reinforcement with corrosion protection and plastering complete.	Sum	1		0,00
B.1.8	8.2.10	Remove topsoil to a nominal depth of 150mm for unsurfaced areas within the dams premises, and dispose of at designated disposal site.	m ³	525		0,00
B.2	SANS 1200 D	<u>EARTHWORKS</u>				
	8.3.2(a)	Excavate in all materials and use for embankment or backfill or dispose, as ordered. 150mm in-situ material to be ripped and recompacted to 95% MOD AASTHO density.				

TOTAL CARRIED FORWARD						0,00
SECTION B: EARTHWORKS						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
B.2.1		Primary dam basin, drainage sump and embankments for depths not exceeding 2.5m	m ³	1 000		0,00
B.2.2		Secondary dam basin, drainage sump and embankments for depths not exceeding 2.5m	m ³	4 500		0,00
	8.3.2(b)(2)	Extra-over for item B.2.1				
B.2.3		Rock excavation - Demolish and remove existing dam 1 concrete surface layer (concrete filled geocells) and dispose of at designated disposal site.	m ³	510		0,00
	8.3.3(a)	Excavate in all materials and use for embankment or backfill or dispose, as ordered. 150mm in-Situ material to be ripped and recompacted to 95% MOD AASTHO density.				
		Exceeding 0,0m but not exceeding 1,0m				
B.2.4		Anchor trench for Primary and Secondary dam as per DWG R21-097-00-212	m ³	900		0,00
B.2.5		Primary dam overflow weir as per DWG R21-097-00-200	m ³	25		0,00
B.2.6		Secondary dam overflow weir as per DWG R21-097-00-201 and DWG R21-097-00-202	m ³	100		0,00
B.2.7		1000mm concrete v-drains as per DWG R21-097-00-203	m ³	30		0,00
B.2.8		2000mm concrete v-drains as per DWG R21-097-00-203	m ³	40		0,00
B.2.9		4500mm concrete trapizoidal channel as per DWG R21-097-00-203	m ³	71		0,00
		Exceeding 1,0m but not exceeding 2,0m				
B.2.10		450mm Ø PE Effluent pipeline non-return valve chamber as per DWG R21-097-00-358	m ³	10		0,00
B.2.11		300mm Ø HDPE Gypsum pipeline non-return valve chamber as per DWG R21-097-00-357	m ³	7		0,00
B.2.12		160mm Ø HDPE pipeline isolation valve chamber as per DWG R21-097-00-352	m ³	1,5		0,00

B.2.13		160mm Ø HDPE pipeline non-return valve chamber as per DWG R21-097-00-355	m ³	7,5		0,00
TOTAL CARRIED FORWARD						0,00

SECTION B: EARTHWORKS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
B.2.14		250mm Ø HDPE pipeline isolation valve chamber as per DWG R21-097-00-353	m ³	8		0,00
B.2.15		250mm Ø HDPE pipeline non-return valve chamber as per DWG R21-097-00-356	m ³	26		0,00
B.2.16		110mm Ø HDPE pipeline isolation valve chamber as per DWG R21-097-00-352	m ³	1		0,00
	8.3.3(b)	Extra-over for item B.2.3 to B.2.16				
B.2.17	8.3.3(b)(2)	Hard rock excavation	m ³	6		0,00
	8.3.4(a)	Importation of approved G5 natural gravel from commercial sources, place, level and compact for:				
B.2.18		Primary dam basin and embankments - 150mm compacted to 96% MOD AASTHO density.	m ³	410		0,00
B.2.19		Secondary dam basin and embankments - 150mm compacted to 96% MOD AASTHO density.	m ³	1 110		0,00
B.2.20		Primary dam anchor trench - 150mm compacted to 96% MOD AASTHO density.	m ³	50		0,00
B.2.21		Secondary dam anchor trench - 150mm compacted to 96% MOD AASTHO density.	m ³	90		0,00
B.2.22		Secondary dam overflow channel - 150mm compacted to 96% MOD AASTHO density.	m ³	110		0,00
B.2.23		1000mm concrete v-drains - 150mm compacted to 96% MOD AASTHO density.	m ³	13		0,00
B.2.24		2000mm concrete v-drains - 150mm compacted to 96% MOD AASTHO density.	m ³	16		0,00
B.2.25		4500mm concrete trapizoidal channel - 150mm compacted to 96% MOD AASTHO density.	m ³	24		0,00
B.2.26		450mm Ø PE Effluent pipeline non-return valve chamber as per DWG R21-097-00-358 - 150mm compacted to 96% MOD AASTHO density.	m ³	1		0,00

TOTAL CARRIED FORWARD						0,00
SECTION B: EARTHWORKS						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
B.2.27		300mm Ø HDPE Gypsum pipeline non-return valve chamber as per DWG R21-097-00-357 - 150mm compacted to 96% MOD AASTHO density.	m ³	1		0,00
B.2.28		160mm Ø HDPE pipeline isolation valve chamber as per DWG R21-097-00-352 - 150mm compacted to 96% MOD AASTHO density.	m ³	0,5		0,00
B.2.29		160mm Ø HDPE pipeline non-return valve chamber as per DWG R21-097-00-355 - 150mm compacted to 96% MOD AASTHO density.	m ³	1		0,00
B.2.30		250mm Ø HDPE pipeline isolation valve chamber as per DWG R21-097-00-353 - 150mm compacted to 96% MOD AASTHO density.	m ³	1		0,00
B.2.31		250mm Ø HDPE pipeline non-return valve chamber as per DWG R21-097-00-356 - 150mm compacted to 96% MOD AASTHO density.	m ³	2		0,00
B.2.32		110mm Ø HDPE pipeline isolation valve chamber as per DWG R21-097-00-352 - 150mm compacted to 96% MOD AASTHO density.	m ³	0,1		0,00
	8.3.4(a)	Importation of approved G9 natural gravel from commercial sources, place, level and compact for:				
B.2.33		Primary dam basin and embankments - 150mm compacted to 100% MOD AASTHO density.	m ³	410		0,00
B.2.34		Secondary dam basin and embankments - 150mm compacted to 100% MOD AASTHO density.	m ³	1 110		0,00
B.2.35		Primary dam anchor trench - 150mm compacted to 100% MOD AASTHO density.	m ³	50		0,00
B.2.36		Secondary dam anchor trench - 150mm compacted to 100% MOD AASTHO density.	m ³	90		0,00

TOTAL CARRIED FORWARD						0,00

SECTION B: EARTHWORKS

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
B.2.37	8.3.4(a)	Importation of approved G7 natural gravel from commercial sources, place, level and compact for: Primary dam basin and embankments - 150mm compacted to 93% MOD AASTHO density.	m ³	410		0,00
B.2.38		Secondary dam basin and embankments - 150mm compacted to 93% MOD AASTHO density.	m ³	1 110		0,00
B.2.39		Primary dam anchor trench - 150mm compacted to 93% MOD AASTHO density.	m ³	50		0,00
B.2.40		Secondary dam anchor trench - 150mm compacted to 93% MOD AASTHO density.	m ³	90		0,00
B.2.41	8.3.4(a)	Importation of approved 19mm stone from commercial sources, place, level and compact for: Primary dam leakage drainage and leakage detection as per drawing R21-097-00-212	m ³	100		0,00
B.2.42		Secondary dam leakage drainage and leakage detection as per drawing R21-097-00-212	m ³	405		0,00
B.2.43	8.3.10	Topsoiling Provide 150mm thick layer topsoiling from stockpile for pipe trenches with widths not exceeding 2m	m ²	650		0,00
B.3	SANS 1200 DB	<u>EARTHWORKS (PIPE TRENCHES)</u>				
B.3.1	8.3.2(a)	Excavate in all materials for pipe trenches, backfill, compact to 93% Mod AASHTO maximum density, and dispose of surplus/unsuitable material, for new pipe installations, irrespective of material type up to 250 mm dia. for total trench depth: Exceeding 0,0 m but not exceeding 1,5 m	m	500		0,00

TOTAL CARRIED FORWARD						0,00
SECTION B: EARTHWORKS						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
	8.3.2(a)	Excavate in all materials for pipe trenches, backfill, compact to 93% Mod AASHTO maximum density, and dispose of surplus/unsuitable material, for existing underground pipes, irrespective of material type up to 315 mm dia. for total trench depth:				
B.3.2		Exceeding 0,0 m but not exceeding 1,5 m	m	600		0,00
	8.3.2(b)	Extra-over for items B.3.1 and B.3.2 incl. for:				
B.3.3	8.3.2(b)(2)	Hard rock excavation	m ³	68		0,00
B.3.4	8.3.2(b)	Excavate and dispose of unsuitable material from trench bottom (100mm thickness) (Provisional)	m ³	45		0,00
B.4	SANS 1200 LB	<u>PROVISION OF BEDDING</u>				
	8.2.1	Available from trench within 0,5 km (Subclause 3.4.1)				
B.4.1	8.2.1(a)	a) Selected bedding cradle and blanket material	m ³	250		0,00
B.4.2	8.2.1(b)	b) Selected fill material	m ³	450		0,00
B.4.3	8.2.2.3(a)	Import 19mm stone from commercial source and place at bottom of trench (100mm thickness) (Provisional)	m ³	17		0,00
B.5	SANS 1200 DM	<u>EARTHWORKS (ROADS, SUBGRADE)</u>				
		TREATMENT OF ROAD-BED				
	8.3.3(a)(2)	Road-bed preparation and compaction of material				
B.5.1	8.3.3(a)(2)	Compact to 100% Mod AASHTO density for 150mm thick.	m ³	195		0,00
	8.3.7	Cut to stockpile from soft excavation for:				
B.5.2		Internal access road as per DWG R21-097-00-203	m ³	300		0,00

TOTAL CARRIED FORWARD						0,00
SECTION B: EARTHWORKS						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
B.6	SANS 1200 ME	<u>SUBBASE</u>				
	8.3.3	Construct subbase with material from commercial sources				
B.6.1		150 mm G7 approved material for upper selected layer, compacted to 93% Mod AASHTO density.	m ³	195		0,00
B.6.2		150 mm G5 approved material compacted to 97% Mod AASHTO density.	m ³	195		0,00
B.6.3		Stabilizing to C4 requirement.	m ³	195		0,00
	8.3.8(b)	Stabilizing agent				
B.6.4		Portland cement	t	11,2		0,00
B.7	SANS 1200 DK	<u>GABIONS AND PITCHING</u>				
		GABIONS				
B.7.1	8.2.1	Surface preparation for bedding of gabions	m ²	13		0,00
	8.2.2	Supply Gabions (Double twist hexagonal wire mesh Type 80 with 2,7mm Class A galvanised wire to SANS 1580:2005) and install (including unfolding, placing, filling and lacing) as per DWG. R21-097-00-202 for the following sizes:				
B.7.2		1m x 1m x 1m	m ³	13		0,00
B.7.3	8.2.4 & PK	Supply and install Grade A5 Geotextile by Kayteck or Similar approved	m ²	30		0,00

TOTAL CARRIED FORWARD						0,00
SECTION B: EARTHWORKS						
ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
		RENO MATTRESSES				
B.7.4	8.2.1	Surface preparation for bedding of reno mattresses	m ²	710		0,00
	8.2.2	Supply Reno mattresses (Double twist hexagonal wire mesh Type 80 with 2,7mm Class A galvanised wire to SANS 1580:2005) and install (including unfolding, placing, filling and lacing) as per DWG. R21-097-00-202 for the following sizes:				
B.7.5		3m x 1m x 0.3m	m ³	156		0,00
B.7.6		3m x 1m x 0.2m	m ³	7		0,00
B.7.7		2m x 1m x 0.3m	m ³	48		0,00
B.7.8	8.2.4 & PK	Supply and install Grade A5 Geotextile by Kayteck or Similar approved	m ²	710		0,00

TOTAL CARRIED FORWARD TO FINAL SUMMARY						0,00

SECTION C: CONCRETE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION C: CONCRETE				
	SANS 1200 GA	<u>CONCRETE (SMALL WORKS)</u>				
C.1		FORMWORK				
	8.2.2	Smooth vertical formwork to:				
C.1.1		Primary dam overflow weir as per DWG R21-097-00-200	m ²	24		0,00
C.1.2		Secondary dam overflow weir as per DWG R21-097-00-201 and DWG R21-097-00-202	m ²	9		0,00
C.1.3		1000mm concrete v-drains as per DWG R21-097-00-203	m ²	17		0,00
C.1.4		2000mm concrete v-drains as per DWG R21-097-00-203	m ²	22		0,00
C.1.5		4500mm concrete trapizoidal channel as per DWG R21-097-00-203	m ²	21		0,00
C.1.6		Primary dam leakage collection sump as per DWG R21-097-00-213	m ²	8		0,00
C.1.7		Secondary dam leakage collection sump as per DWG R21-097-00-213	m ²	8		0,00
C.1.8		Primary dam entrance beam as per DWG R21-097-00-207	m ²	9		0,00
C.1.9		Secondary dam entrance beam as per DWG R21-097-00-207	m ²	4		0,00
C.1.10		Pump P1 plinth as per DWG R21-097-00-207	m ²	2,5		0,00
C.1.11		Pump P2 plinth as per DWG R21-097-00-207	m ²	2,5		0,00
C.1.12		Pump S1 plinth as per DWG R21-097-00-207	m ²	2,5		0,00
C.1.13		Pump P1 suction pipe anchor blocks as per DWG R21-097-00-205 and R21-097-00-216	m ²	5,2		0,00
C.1.14		Pump P2 suction pipe anchor blocks as per DWG R21-097-00-205 and R21-097-00-216	m ²	5,2		0,00

C.1.15		Pump S1 suction pipe anchor blocks as per DWG R21-097-00-205 and R21-097-00-216	m²	5,2		0,00
TOTAL CARRIED FORWARD						0,00

SECTION C: CONCRETE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
C.1.16		Primary dam inlet structure as per DWG R21-097-00-206	m²	5		0,00
C.1.17		Primary dam leakage drainage pump sleeve cover slab as per DWG R21-097-00-215 (3 off)	m²	1,5		0,00
C.1.18		Secondary dam leakage drainage pump sleeve cover slab as per DWG R21-097-00-215 (3 off)	m²	1,5		0,00
C.2		REINFORCEMENT				
	8.3.1	High yield steel 0 - 16mm reinforcing				
C.2.1		Primary dam overflow weir as per DWG R21-097-00-200	Kg	537		0,00
C.2.2		Pump P1 plinth as per DWG R21-097-00-207	Kg	80		0,00
C.2.3		Pump P2 plinth as per DWG R21-097-00-207	Kg	80		0,00
C.2.4		Pump S1 plinth as per DWG R21-097-00-207	Kg	80		0,00
C.2.5		Pump P1 suction pipe anchor blocks as per DWG R21-097-00-205 and R21-097-00-216	Kg	31		0,00
C.2.6		Pump P2 suction pipe anchor blocks as per DWG R21-097-00-205 and R21-097-00-216	Kg	31		0,00
C.2.7		Pump S1 suction pipe anchor blocks as per DWG R21-097-00-205 and R21-097-00-216	Kg	31		0,00
C.2.8		Primary dam inlet structure as per DWG R21-097-00-206	Kg	145		0,00
	8.3.2	High-Tensile Welded Mesh				
		Mesh ref 193.				
C.2.9		Primary dam leakage collection sump as per DWG R21-097-00-213	m²	100		0,00
C.2.10		Secondary dam leakage collection sump as per DWG R21-097-00-213	m²	100		0,00

C.2.11		Walkway between Primary and Secondary Dam as per DWG R21-097-00-003	m ²	190		0,00
C.2.12		2000mm concrete v-drains as per DWG R21-097-00-203	m ²	110		0,00
TOTAL CARRIED FORWARD						0,00

SECTION C: CONCRETE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
		Mesh ref 395.				
C.2.13		Primary dam entrance beam as per DWG R21-097-00-208	m ²	11		0,00
C.2.14		Secondary dam entrance beam as per DWG R21-097-00-208	m ²	27		0,00
C.2.15		Secondary dam overflow weir as per DWG R21-097-00-201 and DWG R21-097-00-202	m ²	165		0,00
C.2.16		Primary dam leakage drainage pump sleeve cover slab as per DWG R21-097-00-215 (3 off)	m ²	2,5		0,00
C.2.17		Secondary dam leakage drainage pump sleeve cover slab as per DWG R21-097-00-215 (3 off)	m ²	2,5		0,00
C.2.18		4500mm concrete trapizoidal channel as per DWG R21-097-00-203	m ²	157		0,00
C.3		CONCRETE				
	8.4.3	Strength concrete, class 30MPa / 19mm for:				
C.3.1		Primary dam multicell HD Geocell as per DWG R21-097-00-003	m ³	305		0,00
C.3.2		Secondary dam multicell HD Geocell as per DWG R21-097-00-003	m ³	795		0,00
C.3.3		Primary dam overflow weir as per DWG R21-097-00-200	m ³	10,5		0,00
C.3.4		Secondary dam overflow weir as per DWG R21-097-00-201 and DWG R21-097-00-202	m ³	35		0,00
C.3.5		Pump P1 suction pipe anchor blocks R21-097-00-205 and R21-097-00-216	m ³	1		0,00
C.3.6		Pump P2 suction pipe anchor blocks R21-097-00-205 and R21-097-00-216	m ³	1		0,00
C.3.7		Pump S1 suction pipe anchor blocks R21-097-00-205 and R21-097-00-216	m ³	1		0,00

C.3.8		1000mm concrete v-drains as per DWG R21-097-00-203	m ³	12,5		0,00
C.3.9		2000mm concrete v-drains as per DWG R21-097-00-203	m ³	16		0,00
TOTAL CARRIED FORWARD						0,00

SECTION C: CONCRETE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
C.3.10		4500mm concrete trapizoidal channel as per DWG R21-097-00-203	m ³	32		0,00
C.3.11		Primary dam entrance beam as per DWG R21-097-00-208	m ³	2		0,00
C.3.12		Secondary dam entrance beam as per DWG R21-097-00-208	m ³	4		0,00
C.3.13		Walkway between Primary and Secondary Dam as per DWG R21-097-00-003	m ³	19		0,00
C.3.14		Pump P1 plinth as per DWG R21-097-00-207	m ³	0,8		0,00
C.3.15		Pump P2 plinth as per DWG R21-097-00-207	m ³	0,8		0,00
C.3.16		Pump S1 plinth as per DWG R21-097-00-207	m ³	0,8		0,00
C.3.17		Primary dam inlet structure as per DWG R21-097-00-206	m ³	1,4		0,00
C.3.18		Safety bouy stand base (2 off) as per DWG R21-097-00-211	m ³	0,2		0,00
C.3.19		Safety rope anchor block (2 off) as per DWG R21-097-00-211	m ³	0,3		0,00
	8.4.3	Strength concrete, class 35MPa / 19mm for:				
C.3.20		Primary dam leakage collection sump as per DWG R21-097-00-213	m ³	15		0,00
C.3.21		Secondary dam leakage collection sump as per DWG R21-097-00-213	m ³	15		0,00
C.3.22		Primary dam leakage drainage pump sleeve cover slab as per DWG R21-097-00-215 (3 off)	m ³	0,5		0,00
C.3.23		Secondary dam leakage drainage pump sleeve cover slab as per DWG R21-097-00-215 (3 off)	m ³	0,5		0,00
C.4		SURFACE FINISHES				

	8.4.4	Unformed surface finishes				
	8.4.4(a)	Wood-floated finish to:				
C.4.1		Primary dam overflow weir as per DWG R21-097-00-200	m²	52		0,00
TOTAL CARRIED FORWARD						0,00

SECTION C: CONCRETE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
C.4.2		Secondary dam overflow weir as per DWG R21-097-00-201 and DWG R21-097-00-202	m²	165		0,00
C.4.3		1000mm concrete v-drains as per DWG R21-097-00-203	m²	85		0,00
C.4.4		2000mm concrete v-drains as per DWG R21-097-00-203	m²	108		0,00
C.4.5		4500mm concrete trapizoidal channel as per DWG R21-097-00-203	m²	158		0,00
C.4.6		Primary dam leakage collection sump as per DWG R21-097-00-213	m²	97		0,00
C.4.7		Secondary dam leakage collection sump as per DWG R21-097-00-213	m²	97		0,00
C.4.8		Primary dam entrance beam as per DWG R21-097-00-208	m²	11		0,00
C.4.9		Secondary dam entrance beam as per DWG R21-097-00-208	m²	27		0,00
C.4.10		Walkway between Primary and Secondary Dam as per DWG R21-097-00-003	m²	190		0,00
C.4.11		Pump P1 plinth as per DWG R21-097-00-207	m²	2		0,00
C.4.12		Pump P2 plinth as per DWG R21-097-00-207	m²	2		0,00
C.4.13		Pump S1 plinth as per DWG R21-097-00-207	m²	2		0,00
C.4.14		Primary dam inlet structure as per DWG R21-097-00-206	m²	4		0,00
C.4.15		Safety bouy stand base (2 off) as per DWG R21-097-00-211	m²	0,4		0,00
C.4.16		Safety rope anchor block (2 off) as per DWG R21-097-00-211	m²	0,5		0,00
C.5		JOINTS				
	8,5	Saw-cut joints as per detail				

C.5.1		Secondary dam overflow weir as per DWG R21-097-00-201 and DWG R21-097-00-202	m	24		0,00
C.5.2		1000mm concrete v-drains as per DWG R21-097-00-203	m	84		0,00
TOTAL CARRIED FORWARD						0,00

SECTION C: CONCRETE

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
C.5.3		2000mm concrete v-drains as per DWG R21-097-00-203	m	53		0,00
C.5.4		4500mm concrete trapizoidal channel as per DWG R21-097-00-203	m	175		0,00
C.5.5		Secondary dam entrance beam as per DWG R21-097-00-208	m	2		0,00
C.5.6		Walkway between Primary and Secondary Dam as per DWG R21-097-00-003	m	200		0,00
C.6	PM	<u>MULTI-CELL HD GEOCELL</u>				
	8,1	Supply and install Multi-Cell HD SW HD 712-100 as per suppliers recommendation, including supply and fixing using Strata Connectors. (Concrete measured seperately)				
C.6.1		Primary dam basin and embankments as per DWG R21-097-00-003	m²	3 050		0,00
C.6.2		Secondary dam basin and embankments as per DWG R21-097-00-003	m²	7 950		0,00
	8,2	Fix Multi-Cell HD SW HD 712-100 in anchor trench as per suppliers recommendation using J-Hooks.				
C.6.3		Primary dam basin and embankments as per DWG R21-097-00-208	m	210		0,00
C.6.4		Secondary dam basin and embankments as per DWG R21-097-00-208	m	340		0,00
C.7		<u>MISCELLANEOUS</u>				
C.7.1		Supply and install galvanised safety bouy stand as per DWG R21-097-00-211	No.	2		0,00
C.7.2		Supply and install galvanised safety rope anchor block round bar as per DWG R21-097-00-211	No.	2		0,00

C.7.3		Supply and install 16mm Ø polypropylene safety rope knotted at 1m c/c	m	50		0,00
C.7.4		Supply lifebuoy ring	No.	2		0,00
TOTAL CARRIED FORWARD TO FINAL SUMMARY						0,00

SECTION D: PUMPS AND PIPELINES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION D: PUMPS AND PIPELINES				
	SANS 1200 L & PSL	<u>MEDIUM PRESSURE PIPELINES</u>				
		PIPELINES				
D.1	8.2.1	Supply, lay, and bed pipes complete with couplings				
		160mm Ø HDPE PN16 pipe installed between:				
D.1.1		Pump P1 and Sump 1 as per DWG R21-097-00-003	m	210		0,00
D.1.2		Pump S1 and Effluent Pipeline as per DWG R21-097-00-003	m	85		0,00
D.1.3		Pump P2 and Gypsum disposal pipeline as per DWG R21-097-00-003	m	20		0,00
		250mm Ø HDPE PN16 pipe installed between:				
D.1.4		Pump S2 and Effluent Pipeline as per DWG R21-097-00-003	m	45		0,00
D.1.5		Pump S3 and Gypsum disposal pipeline as per DWG R21-097-00-003	m	40		0,00
		250mm Ø HDPE PN8 installed for:				
D.1.6		Primary and secondary dam primary leakage detection drainage sleeve	m	30		0,00
D.1.7		Primary and secondary dam secondary leakage detection drainage sleeve	m	30		0,00
D.1.8		Primary and secondary dam subsoil drainage sleeve	m	30		0,00
		75mm Ø PE100 PN10 perforated pipe installed for:				

D.1.9		Primary and secondary dam primary leakage detection	m	520		0,00
D.1.10		Primary and secondary dam secondary leakage detection	m	520		0,00
D.1.11		110mm Ø Drainex pipe installed for: Primary and secondary dam subsoil drainage	m	535		0,00
TOTAL CARRIED FORWARD						0,00

SECTION D: PUMPS AND PIPELINES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
		FITTINGS AND ACCESSORIES				
	8.2.2 & PC	Extra-over for item D.1 for supplying, laying, and bedding of specials complete with couplings				
		Supply and install flanged ball type non-return valve PN16 by AVK or similar approved, complete with dedicated flange adaptors, for the following pipe sizes:				
D.1.12		160mm Ø HDPE as per DWG R21-097-00-355	No.	3		0,00
D.1.13		250mm Ø HDPE as per DWG R21-097-00-356	No.	2		0,00
D.1.14		300mm Ø HDPE as per DWG R21-097-00-357	No.	1		0,00
		Supply and install flanged metal seated swing check valve PN16 by AVK or similar approved, complete with dedicated flange adaptors, for the following pipe sizes:				
D.1.15		450mm Ø PE as per DWG R21-097-00-358	No.	1		0,00
		Supply and install pipe compression bends for:				
D.1.16		160mm HDPE x 90 deg.	No.	12		0,00
D.1.17		250mm HDPE x 90 deg.	No.	6		0,00
D.1.18		75mm PE x 45 deg.	No.	12		0,00
D.1.19		110mm PE x 45 deg.	No.	7		0,00
D.1.20		160mm HDPE x 45 deg.	No.	6		0,00
		Supply and install pipe laterals:				

D.1.21		75mm x 75mm x 75mm PE	No.	16		0,00
D.1.22		110mm x 110mm x 110mm PE	No.	16		0,00
D.1.23		300mm x 300mm x 300mm as per DWG R21-097-00-354 , complete with dedicated flange adaptors	No.	2		0,00
D.1.24		450mm x 450mm x 450mm as per DWG R21-097-00-354, complete with dedicated flange adaptors	No.	2		0,00
D.1.25		Supply and install pipe equal tees: 110mm x 110mm x 110mm PE	No.	2		0,00
TOTAL CARRIED FORWARD						0,00

SECTION D: PUMPS AND PIPELINES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
D.1.26		Supply and install pipe reducers, complete with dedicated flange adaptors: 300mm x 160mm as per DWG R21-097-00-354	No.	1		0,00
D.1.27		300mm x 250mm as per DWG R21-097-00-354	No.	1		0,00
D.1.28		450mm x 160mm as per DWG R21-097-00-354	No.	1		0,00
D.1.29		450mm x 250mm as per DWG R21-097-00-354	No.	1		0,00
		CAST IRON RESILIENT SEAL VALVES				
	8.2.3 & PC	Extra-over for item D.1 for supplying, fixing, and bedding of valves				
		Supply and install metal seated wedge gate valve with non-rising spindle, clockwise closing, cap-top operated, complete with dedicated flange adaptors, for the following pipe sizes:				
D.1.30		160mm Flanged as per DWG R21-097-00-352	No.	3		0,00
D.1.31		250mm Flanged as per DWG R21-097-00-353	No.	2		0,00
		SHORT PIPE RUNS				
	8.2.5	Supply, handle, lay, install, mild steel grade X42 galvanised pipe, copon coated, with wall thickness of 4.5mm, for the following pipe runs:				

D.1.32		100mm NB suction pipe leading to pump P1 with puddle flanges positioned in concrete anchore blocks as per DWG R21-097-00-216	No.	1		0,00
D.1.33		150mm NB suction pipe leading to pump S1 with puddle flanges positioned in concrete anchore blocks as per DWG R21-097-00-216	No.	1		0,00
D.1.34		150mm NB suction pipe leading to pump P2 with puddle flanges positioned in concrete anchore blocks as per DWG R21-097-00-216	No.	1		0,00
TOTAL CARRIED FORWARD						0,00

SECTION D: PUMPS AND PIPELINES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
D.1.35		300mm NB suction pipe leading to pump S2, with both ends flanged, inclusive of bellmouth and 90° bend, complete as per DWG R21-097-00-204	No.	1		0,00
D.1.36		300mm NB suction pipe leading to pump S3, with both ends flanged, inclusive of bellmout and 90° bend, complete as per DWG R21-097-00-204	No.	1		0,00
		VALVE CHAMBERS				
	8.2.13 & PE	Construction of valve chambers complete to detail including for cover and frame for the following pipe sizes and valves:				
D.1.37		450mm Ø PE Effluent pipeline non-return valve as per DWG R21-097-00-358	No.	1		0,00
D.1.38		300mm Ø HDPE Gypsum pipeline non-return valve as per DWG R21-097-00-357	No.	1		0,00
D.1.39		160mm Ø HDPE pipeline isolation valve as per DWG R21-097-00-352	No.	3		0,00
D.1.40		160mm Ø HDPE pipeline non-return valve as per DWG R21-097-00-355	No.	2		0,00
D.1.41		250mm Ø HDPE pipeline isolation valve as per DWG R21-097-00-353	No.	2		0,00
D.1.42		250mm Ø HDPE pipeline non-return valve as per DWG R21-097-00-356	No.	2		0,00
D.1.43		110mm Ø HDPE pipeline isolation valve as per DWG R21-097-00-352	No.	1		0,00

D.2	PA & PB	<u>MECHANICAL & ELECTRICAL WORK</u>				
		Supply, install, test and commission the following equipment complete with all bolts, washers, frames, etc. as required:				
		PUMPS				
D.2.1		T4A65SC B/FM CD4MCU S/S pump as supplied by Gorman-Rupp Pumps, including dedicated flange adaptors	No.	3		0,00
D.2.2		T10A65SC B/FM CD4MCU S/S pump as supplied by Gorman-Rupp Pumps, including dedicated flange adaptors	No.	2		0,00
D.2.3		0.75KW multi-stage stainless steel submersible pump supplied by Gorman-Rupp Pumps	No.	4		0,00
TOTAL CARRIED FORWARD						0,00

SECTION D: PUMPS AND PIPELINES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
		MOTORS				
D.2.4		7.5KW W20 IE1 IP55 400V electric motor by Zest Weg Group (Pump P1)	No.	1		0,00
D.2.5		15KW W20 IE1 IP55 400V electric motor by Zest Weg Group (Pump P2)	No.	1		0,00
D.2.6		22KW W20 IE1 IP55 400V electric motor by Zest Weg Group (Pump S1)	No.	1		0,00
D.2.7		75KW W20 IE1 IP55 400V electric motor by Zest Weg Group (Pump S2)	No.	1		0,00
D.2.8		75KW W20 IE1 IP55 400V electric motor by Zest Weg Group (Pump S3)	No.	1		0,00
		DISTRIBUTION BOARDS				
D.2.9		Auxiliary DB complete with all electrical controls for pump P1 and wired to the clients main supply and certificate of conformance issued.	No.	1		0,00
D.2.10		Auxiliary DB complete with all electrical controls for pump P2 and wired to the clients main supply and certificate of conformance issued.	No.	1		0,00
D.2.11		Auxiliary DB complete with all electrical controls for pump S1 and wired to the clients main supply and certificate of conformance issued.	No.	1		0,00

D.2.12		Auxiliary DB complete with all electrical controls for pump S2 and wired to the clients main supply and certificate of conformance issued.	No.	1		0,00
D.2.13		Auxiliary DB complete with all electrical controls for pump S3 and wired to the clients main supply and certificate of conformance issued.	No.	1		0,00
		LIQUID LEVEL CONTROL				
D.2.14		EasyTREK Ultrasonic level transmitter by Nivelco Process Control	No.	5		0,00
D.2.15		MultiCONT Multichannel Process controller Nivelco Process Control	No.	5		0,00
TOTAL CARRIED FORWARD						0,00

SECTION D: PUMPS AND PIPELINES

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
D.3	SANS 1200 LE	<u>STORMWATER DRAINAGE</u>				
	8.2.8	Dam leakage pump sleeve cover slab				
D.3.1		Construct concrete cover slab over pump sleeve including the supply, delivery and installation of 760mm x 760mm light weight cast iron cover slab and frame as per DWG. 21-097-00-215 (Concrete and reinforcing measured elsewhere)	No.	6		0,00
D.4		<u>DIRECTIONAL DRILLING</u>				
		Provide equipment, setup including excavation if required, determine drill path, drill and recover of equipment. Pipe sections to be joint by heated-tool butt welding to SANS 10268 and both ends to be provided with flanged connections to Table 1000/3 or as otherwise indicated for the following installations				
D.4.1		200mm Ø HDPE PE 100 PN 16 pipe for 2 x 5m crossings under existing railway line	m	10		0,00

TOTAL CARRIED FORWARD TO FINAL SUMMARY						0,00

SECTION E: DESILTING

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
E.1	PH	SECTION E: DESILTING Provide all equipment, personnel and pump silt from dam to Gypsum Disposal Pipeline.				
E.1.1		Primary Dam	m ³	1500		0,00
E.1.2		Secondary Dam	m ³	2000		0,00
E.1.3		Allow for dilution of silt together with monitoring and maintaining required SG for silt from Primary and Secondary Dam	m ³	3500		0,00
		Dewatering of silt and pump of overflow water to Gypsum Disposal Pipeline. Refer to specifications				
E.1.4		Silt from Primary Dam	m ³	1500		0,00
E.1.5		Silt from Secondary Dam	m ³	2000		0,00
E.1.6		Allow for lowering of water levels in Primary and Secondary Dam utilizing existing pumpstations (Provisional item)	m ³	1500		0,00
E.1.7		Remove silt located on embankment above water line by means of light mechanical equipment for Primary and Secondary Dam.	m ³	500		0,00
		Pumps				

E.1.8		Utilize existing pumpstations to pump silt to Gypsum Disposal Pipeline for silt from Primary and Secondary Dam.	Sum	1		0,00
		Extra-over items E.1.8 incl. for (provisional):				
E.1.9		Maintanance of pump, motor and associated mechanical and electrical equipment to effectively perform desilting (for duration of desilting of Primary and Secondary Dam)	Sum	1		0,00
		Pipework				
E.1.10		Supply and install, complete with couplings, temporary 250mm Ø HDPE PN16 pipe.	m	700		0,00
		Extra-over items E.1.10 incl. for:				
E.1.11		Connection to Gypsum Disposal Pipeline	Sum	1		0,00
E.1.12		Connection to pumpstation	Sum	2		0,00
TOTAL CARRIED FORWARD TO FINAL SUMMARY						0,00

SECTION F: DAM LINER

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
		SECTION F: DAM LINER				
F.1	PK	<u>GEOTEXTILE</u>				
	8.1	Supply				
F.1.1		Type B geotextile protection layer to basin and up embankments for Primary dam	m²	4 420		0,00
F.1.2		Type B geotextile protection layer to basin and up embankments for Secondary dam (5 layers)	m²	13 125		0,00
	8.2	Install				
F.1.3		Type B geotextile protection layer to basin and up embankments for Primary dam (5 layers)	m²	15 250		0,00
F.1.4		Type B geotextile protection layer to basin and up embankments for Secondary dam (5 layers)	m²	39 750		0,00
F.2	PL	<u>GEOSYNTHETIC CLAY LINER</u>				
	8.1	Supply				
F.2.1		4000g/m2 Reinforced GCL lining to basin and up embankments stitched or sealed with bentonite paste on embankment terminations for Primary dam	m²	3 050		0,00

F.2.2		4000g/m2 Reinforced GCL lining to basin and up embankments stitched or sealed with bentonite paste on embankment terminations for Secondary dam	m ²	7 950		0,00
	8.2	Install				
F.2.3		4000g/m2 Reinforced GCL lining to basin and up embankments stitched or sealed with bentonite paste on embankment terminations for Primary dam	m ²	3 050		0,00
F.2.4		4000g/m2 Reinforced GCL lining to basin and up embankments stitched or sealed with bentonite paste on embankment terminations for Secondary dam	m ²	7 950		0,00
		Extra over F.2.3 - F.2.4				
F.2.5	8.2	Sealing GCL around existing and new concrete structures, as per drawing R21-097-00-213	m	100		0,00
TOTAL CARRIED FORWARD						0,00

SECTION F: DAM LINER

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
F.3	PI	<u>GEOMEMBRANE</u>				
		HDPE lining, including all necessary welding, all as per manufacturer's specifications				
	10.1	Supply				
F.3.1		1.5mm Smooth HDPE geomembrane to basin and up embankments for Primary dam (Secondary and Tertiary liner)	m ²	6 100		0,00
F.3.2		2mm Smooth HDPE geomembrane to basin and up embankments for Primary dam (Primary liner)	m ²	3 050		0,00
F.3.3		1.5mm Smooth HDPE geomembrane to basin and up embankments for Secondary dam (Secondary and Tertiary liner)	m ²	15 900		0,00
F.3.4		2mm Smooth HDPE geomembrane to basin and embankments for Secondary dam (Primary liner)	m ²	7 950		0,00
	10.2	Install				
F.3.5		1.5mm Smooth HDPE geomembrane to basin and embankments for Primary dam (Secondary and Tertiary liner)	m ²	6 100		0,00

F.3.6		2mm Smooth HDPE geomembrane to basin and embankments for Primary dam (Primary liner)	m²	3 050		0,00
F.3.7		1.5mm Smooth HDPE geomembrane to basin and embankments for Secondary dam (Secondary and Tertiary liner)	m²	15 900		0,00
F.3.8		2mm Smooth HDPE geomembrane to basin and embankments for Secondary dam (Primary liner)	m²	7 950		0,00
		Extra over F.3.5 - F.3.8				
F.3.9	10.3	HDPE geomembrane for working lining around pipes, openings, etc. not exceeding 355mm diameter	No	6		0,00
F.3.10	10.2	Sealing HDPE geomembrane around existing and new concrete structures, as per drawing R21-097-00-213	m	100		0,00
F.3.11	10.2	Leak detection testing on HDPE geomembrane, undertaken by a certified specialist.	m²	33 000		0,00
TOTAL CARRIED FORWARD						0,00

SECTION F: DAM LINER

ITEM	PAYMENT	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
TOTAL BROUGHT FORWARD						0,00
F.4	PJ	<u>CUSPATED DRAINS AND DRAINAGE GEOCOMPOSITES</u>				
	8.1	Supply				
F.4.1		750 micrometer Cuspated drain to basin and embankments for Primary dam (2 layers)	m²	6 100		0,00
F.4.2		750 micrometer Cuspated drain to basin and embankments for Secondary dam (2 layers)	m²	15 900		0,00
	8.2	Install				
F.4.3		750 micrometer Cuspated drain to basin and embankments for Primary dam (2 layers)	m²	6 100		0,00
F.4.4		750 micrometer Cuspated drain to basin and embankments for Secondary dam (2 layers)	m²	15 900		0,00

TOTAL CARRIED FORWARD TO FINAL SUMMARY						0,00

		SUMMARY	
SECTION	DESCRIPTION	AMOUNT	
A	PRELIMINARY & GENERAL	R	440 000,00
B	EARTHWORKS		R0,00
C	CONCRETE		R0,00
D	PUMPS AND PIPELINES		R0,00
E	DESILTING		R0,00
F	DAM LINER		R0,00
	SUB-TOTAL		R0,00
	ALLOWANCE FOR 10% CONTINGENCIES		R0,00
	SUB-TOTAL		R0,00
	ADD: 15% VAT		R0,00

TOTAL TENDER AMOUNT	R0,00
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