

APPENDIX A

**CONSTRUCT STORMWATER BERMS AT THE NEW MODDER #14 SHAFT TO PREVENT WATER INGRESS
INTO THE MINE VOID**

STORM WATER MANAGEMENT		
Bill Number	Work to be implemented	Amount
<u>1</u>	Stormwater Management Plan infrastructure	
Sub-Total (Excluding VAT)		
Contingency 10%		
VALUE ADDED TAX (VAT)		
TOTAL CAPEX COST INCL VAT		

**CONSTRUCT STORMWATER BERMS AT THE NEW MODDER #14 SHAFT TO PREVENT WATER INGRESS
INTO THE MINE VOID**

BILL NUMBER: 1

STORMWATER MANAGEMENT PLAN INFRASTRUCTURE

PAYMENT REF. SANS:	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1200 A	1.01	<u>GENERAL</u>				
8.2.1	1.02	Scheduled fixed-charge and value-related items:				
		.01 Fixed preliminary and general charges	Sum	1		
		.02 Value-related preliminary and general charges	Sum	1		
8.2.2	1.03	Scheduled time-related items:				
		.01 Time-related preliminary and general charges	Sum	1		
		.01 Allowance made for armed site security for duration of construction	Months	3		
8.5.1	1.04	Sums stated provisionally by the Engineer:				
		a. Works executed by the Contractor:				
		.01 Tests required and instructed by the Engineer	Prov Sum		R 20,000.00	R 20,000.00
		.02 Handling cost and charges	%	R 20,000.00	10%	R 2,000.00
		b. Allowance made for unmeasured items	Prov Sum	1	R 50,000.00	R 50,000.00
PSA 8.9	1.05	Wayleaves	Sum	1.00	R 15,000.00	R 15,000.00
PSA 8.10	1.06	Compliance with OHS Act and Regulations (including the Construction Regulations, 2003)	Months	3.00		R -
TOTAL CARRIED FORWARD TO SUMMARY PAGE						

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
1200 C	1.07	SITE CLEARANCE				
PSC 8.2.1	1.08	Clear and grub:				
		a. Areas	m ²	18100		
8.2.3	1.09	Remove and grub all trees and tree stumps regardless of girth				
		a. Areas	ha	1.8		
PSC 8.2.10	1.10	Remove topsoil and stockpile				
		a. Remove topsoil to nominal depth of 150mm	m ³	350		
TOTAL CARRIED FORWARD TO NEXT PAGE						

PAYMENT REFERS TO	ITEM NO.	DESCRIPTION	UNIT	QUANTITY	RATE	AMOUNT
TOTAL BROUGHT FORWARD: STORMWATER MANAGEMENT PLAN INFRASTRUCTURE						
1200 D	1.11	EARTHWORKS				
8.3.2	1.12	Bulk excavation:				
		a. Excavate in all materials and use for backfill, berms or dispose as ordered from:				
		1) Excavate platform and cut-off key in all materials	m³	675		
		2) Forming berms using material excavated (at least G7 quality) including haul, placement, shaping and compaction to 93% of modified AASHTO as shown on the drawings	m³	2067		
		3) Shape existing ground to slope away from berm	m³	2709		
		4) Clearance of existing channel	m³	4500		
		5) Closing of mine shaft	m³	17		
		b. Extra over items 8.3.2 above for				
		2) Hard rock excavation	m³	240		
8.3.4	1.13	Importing,placement and compaction of materials:				
		a. Importation of materials from commercial sources for Stormwater Berms				
		1 G7 fill material from commercial sources	m³	1526		
		b. Importation of materials from commercial sources for rock face lining				
		1 150 mm thick Stone Pitching armouring to downstream side of berm	m³	210		
PSD 8.3.1	1.14	Preparation and compaction of in-situ material:				
		a. Rip and recompact in-situ soil to 150mm compacted to 93% MOD AASHTO	m³	360		
8.3.10	1.15	Topsoiling				
		Excavate topsoil from stockpile, spread and levelled 100mm Thick to downstream sloping embankments diversion berm	m²	1100		
8.3.11	1.16	Hydroseeding				
		Sow hydro seeding including scarifying of topsoil and re cultivating top soiled areas to incorporate lime and fertilisers '150mm Thick to sloping embankments of diversion berm	m²	1100		
STORMWATER MANAGEMENT PLAN INFRASTRUCTURE TOTAL - CARRIED TO SUMMARY						