SCHEDULE OF QUANTITIES WOOKSHEET FOR THE PROPOSED WETLAND PAN
KATHU SOLAR PARK

MAIN COST SUMMARY OF NEW WETLAND PAN

SCHEDULE : PRELIMINARY & GENERAL

SECTION	DESCRIPTION	Amount (Excl. VAT)
	PRELIMINARY AND GENERAL (30%) CONTINGENCY (ESTIMATED AT 10% OF TOTAL CONSTRUCTION COSTS)	
	SUB-TOTAL A	

SCHEDULE: NEW PAN CONSTRUCTION

SECTION	DESCRIPTION	Amount (Excl. VAT)
1	SITE CLEARANCE	
2	EARTHWORKS AND EXCAVATIONS	
3	GABIONS AND PITCHING	
4	BASIN DELIVERY PIPELINE SYSTEM	
5	CONCRETE STRUCTURES	
6	MISCELLANEOUS	
	SUB-TOTAL B	

GRAND TOTAL (A+B) (Excl. VAT)

SCHEDULE OF QUANTITIES FOR THE PROPOSED NEW WETLAND PAN
KATHU SOLAR PARK

SCHEDULE : NEW WETLAND PAN

Item	Pay Ref	Description	Unit	Quantity	Rate	Amount
1	SABS 1200C	**SITE CLEARANCE**				
1.1		*Clear and grub site, including removal of trees up to 1.5 m girth (spoil to be spread neatly within 2 km as directed by Engineer):*				
1.1.1		Artificial pan basin area (include. Perimeter bund walls)	m^2	44 000		
1.1.2		Silt trap and diversion spillway	m^2	140		
1.1.3		Stormwater channel	m^2	500.00		
1.1.14		Pan outlet spillway	m^2	78.00		
1.2		*Remove topsoil to a depth of 300mm and stockpile within 2 km as directed by the Engineer :*				
1.2.1		Artificial pan basin	m^3	13 200		
1.2.2		Silt trap and diversion spillway	m^3	42		
1.2.3		Stormwater channel	m^3	150		
1.2.4		Pan outlet spillway	m^3	23.40		
1.3		*Remove carbon rich soils to a depth of 100mm (or other depth as directed by the Engineer) and stockpile within 2 km as directed by the Engineer:*				
1.3.1		Selected areas within the new pan basin area	m^3	880		
		TOTAL CARRIED TO SUMMARY				
2	SABS 1200DA	**EARTHWORKS AND EXCAVATIONS**				
2.1		*Restricted excavation in Class A material. Material to be used for backfill, stockpile, fill, construction of embankments or disposed as directed by the Engineer within 2 km. (Rate to allow for shoring max vertical excavation 1.0 m, cutting back, dewatering etc.)*				
2.1.1		Pan outlet spillway	m^3	8		
2.1.2		Spillway concrete beam/masonry wall foundation	m^3	0.90		
2.1.3		Stormwater channel	m^3	188		
2.2		*Bulk excavation in Class A material. Material to be used for backfill, stockpile, fill, construction of embankments or disposed as directed by the Engineer within 2 km. (Rate to allow for shoring max vertical excavation 1.0 m, cutting back, dewatering etc.)*				
2.2.1		Artificial wetland pan	m^3	25 500		
		Silt trap	m^3	75		
2.3		Extra over Item C2.1 and C2.2 for excavation in Class B material	m^3	11		
		TOTAL CARRIED TO FORWARD				

Item	Pay Ref	Description	Unit	Quantity	Rate	Amount
		TOTAL BROUGHT TO FORWARD				
2.4		*Base preparation of insitu material (Rip and recompacted as specified) to:*				
2.4.1		Artificial wetland pan base + bund bases (95% Standard Proctor Density)	m^2	44 000		
2.4.2		Energy dissipator inlet structure (95% Standard Proctor Density)	m^2	20		
2.4.3		Pan outlet spillway	m^2	24		
2.4.4		Spillway concrete beam/masonry wall foundation (95% Standard Proctor Density)	m^2	2		
2.5		*Construct compacted embankment walls and fills with selected and approved material from borrow pits or excavations and compact to required specification rate to include for sourcing, excavation, loading, hauling, spreading, leveling and forming side slopes) to form:*				
2.5.1		Landscaped pan embankment (using selected fill in 150mm layers, 95% Standard Proctor Density)	m^3	3 000		
2.5.2		150mm thick carbon rich imported soils (no compaction)	m^3	6 600		
		TOTAL CARRIED TO SUMMARY				
3	PSA & SABS 1200DK	**GABIONS AND PITCHING**				
3.1		*Supply and install geotextile to: (Rate to include for cutting, strapping, wastage and stitching)*				
3.1.1		Non-woven geotextile (GRI-GT13, class 2) backing to gabion and reno mattresses	m^2	35		
3.2		*Supply and install Reno Matressing and Gabion cages (Rate to include for sourcing, selection from mine waste rock dump, loading, haulage, and placing of rock, slope preparation, wire mesh cage, binder connectors, forming of baskets etc) Clean rockfill of min 70mm to max 200mm to:*				
3.2.1		Energy dissipator inlet structure	m^3	11		
3.3		*Supply and install 200 mm Thick Grouted Stone Pitching (Rate shall cover the cost of trimming and preparing slopes and excavated surfaces, excavating footing trenches to a vertical depth not exceeding 1 m and backfilling and compacting, supplying, hauling and placing all stone, grout and wire netting, and the complete construction of the pitching):*				
3.3.1		Silt trap diversion spillway	m^2	60		
3.3.2		Pan outlet spillway	m^2	80		
		TOTAL CARRIED TO SUMMARY				
4	SABS 1200LD	**BASIN DELIVERY PIPELINE SYSTEM**				
4.1		*Supply and place washed 19 mm stone to specification around the pipes*				
4.1.1		Water inlet and outlet structure	m^3	0.500		
4.2		*Supply and install 2 x 160 mm diameter slotted HDPE Drainex pipes*				
4.2.1		160mm HDPE water transfer pipes	m	380		
4.2.2		*Supply and install removable end caps*				
4.2.3		Perforated end caps for 160mm HDPE Drainex pipes	No	4		
		TOTAL CARRIED TO SUMMARY				

Item	Pay Ref	Description	Unit	Quantity	Rate	Amount
5	SABS 1200GA	**CONCRETE STRUCTURES**				
5.1		*Formwork*				
5.1.1		Rough shuttering to :				
5.1.1.1		Spillway concrete beam (not required for equivalent masonry wall option)	m^2	13		
5.1.1.2		Silt trap	m^2	42		
5.1.2		Smooth formwork to: Silt				
5.1.2.1		trap - Vertical walls Silt	m^2	35		
5.1.2.2		trap - Divisional walls	m^2	1.5		
5.1.3		Uniform surface finish with wood float to:	m^2			
5.1.3.1		Silt trap	m^2	94		
5.1.3.2		Stormwater channel	m^2	600		
5.1.3.3		Spillway concrete beam (not required for equivalent masonry wall option)				
5.2		*Blinding layer 50 mm thick Class 10MPa/19mm concrete to:*	m^2			
5.2.1		Silt trap	m^2	24		
5.2.2		Pipe water inlet and outlet structures	m^2	18		
5.2.3		Spillway beam/masonry wall foundation		4		
5.3		*25MPa/19mm, concrete, rate to :*	m^3			
5.3.1		Silt trap	m^3	14		
5.3.2		Diversion spillway end beam	m^3	2		
5.3.3		Stormwater channel	m^3	36		
5.3.4		Spillway beam and end beam		2		
		TOTAL CARRIED TO SUMMARY				

Item	Pay Ref	Description	Unit	Quantity	Rate	Amount
6		**MISCELLANEOUS**				
6.1		Grassing of outer slopes as specified (Rate to include for full establishment & maintenance of the planted area)	m^2	25 800		
6.2		*Supply and install sign boards complete with warning notices ("no entry", "no vehicle driving", and "no drinking") at every 50m (Rate to include for attaching sign board to fence with galvanised binding wire)*	No.	17		
6.3		*Pan outlet sluice gate*	No.	1		
6.4		*Silt trap outlet treated timber stoplogs 3 x (1500x300x100)*	No.	1		
		TOTAL CARRIED TO SUMMARY				