**Cost Model: Incineration** 

	Incinerator Designation:	15		Carletonville
	Existing / New / Upgraded	Existing		Carletonville
1	Location: Latitude		deg. South	
1	Longitude		deg. East	
+	Property Parameters: (all costs exclu	do VAT)		
	Site Area		square metres	
-	Estimated Land Cost	R 200		RO
ť	Estimated Edita Sost	11 200	71112	
2	Development Costs:	m2	Cost/m2	Amount
	Earthworks, roads & drainage	500	R 100	50 000
	Building	50	R 2 500	125 000
	Electrical: Switchgear & Reticulation			
1	KVA require			_
Ц	Diesel storage tanks & equipment	40 000	litres	
	Fire-fighting & emergency equipment			_
-	Environmental Impact Assessment			
+	Total development costs			R 240 000
3	Incinerator:		R 0  Amount 50 000 125 000 0 15 000 0 15 000 0 R 240 000  1 1 4 Total 27 108 2.4 11 11 44 R 130 000 R 15 600  Total  R 0  R 0  R 10 R 0  R 10 R 0  R 10 R 10	
-	Make & Model: Lucifer LA150		No. of units:	Amount 50 000 125 000 125 000  50 000 0 15 000 0 R 240 000  1 4 Total 27 108 2.4 11 11 44 R 130 000 R 15 600  Total  R 0 R 0 R 10 000 R 380 000
	Operating hours per day:			
Ť	<u> </u>		Per Unit	Total
1	Capacity:	kgs/hour	27	27
T		kgs/day	i	108
	Rated Power	kw		
	Daily Power consumption:	kwh	-	
	Diesel consumption	lit/hr	11	11
-	Diesel consumption	lit/day		
	Installed cost:		R 130 000	
	Estimated annual maintenance cost:		12.00%	
Ť				
-	Gas Scrubbers:			
+	Make & Model: n/a		No. of units:	0
1	Operating hours per day:		D	<b>-</b>
ļ,	Patad Dawar	1	Per Unit	l otal
	Rated Power Daily Power consumption:	kw kwh		
-	· · · · · · · · · · · · · · · · · · ·	lit/hr		
	Water consumption Water consumption		+	
-	· · · · · · · · · · · · · · · · · · ·	lit/day		В.
+	Installed cost:		-	
ť	Estimated annual maintenance cost:			, Ru
+	Sundry Equipment:			
	Office & Washroom furniture			2 000
+	Computer			
	Store			
+	Coldroom			_
+	Ash skips			-
	Total Sundry Equipment cost:			
	Estimated annual maintenance cost:		10.00%	
ť	and a second sec		10.0070	
j:	Total Capital Cost:		R 380 000	
	Estimated total annual maintenance cos	st:		R 16 600
ſ				
1	Dawar & Canaumahlaa			
+	Power & Consumables  Working days per annum: 30	00		
11	Annual usage & cost: Quanti		Unit Cost	Total Cost
*	Incinerators:	-, -	Jint Oost	. 3141 3031
4				600
4	Electricity 3.20	0 kwh	R 0 1838	() () ()
4		0 kwh	R 0.1838 R 2.95	
4	Diesel 13 20		R 0.1838 R 2.95	38 940
1	Diesel 13 20 Other			
,	Diesel 13 20			38 940
	Diesel 13 20 Other Scrubbers:	0 lit	R 2.95	38 940 0
4	Diesel 13 20 Other Scrubbers: Electricity	0 lit 0 kwh	R 2.95	38 940 0
	Diesel 13 20 Other Scrubbers: Electricity Water	0 lit 0 kwh 0 lit	R 2.95	38 940 0 0
	Diesel 13 20 Other Scrubbers: Electricity Water Lime	0 lit 0 kwh 0 lit	R 2.95	38 940 0 0
	Diesel 13 20 Other Scrubbers: Electricity Water Lime Sundry consumables:	0 lit 0 kwh 0 lit	R 2.95	38 940 0 0 0 0 0
	Diesel 13 20 Other  Scrubbers: Electricity Water Lime Sundry consumables: Clothing	0 lit 0 kwh 0 lit	R 2.95	38 940 0 0 0 0 0 0 1 000
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime Sundry consumables: Clothing Other	0 kwh 0 lit 0 kg	R 2.95	38 940 0 0 0 0 0 1 000 2 500
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime Sundry consumables: Clothing Other Water	0 kwh 0 lit 0 kg	R 2.95	38 940 0 0 0 0 0 1 000 2 500 2 000
	Diesel 13 20 Other  Scrubbers:  Electricity  Water  Lime  Sundry consumables:  Clothing  Other  Water  Water  Misc. services: ash removal	0 kwh 0 lit 0 kg	R 2.95	38 940 0 0 0 0 1 000 2 500 2 000 5 000
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime  Sundry consumables: Clothing Other Water Misc. services: ash removal Annual Eskom connection cost:  Total Annual Power & Consumables	0 kwh 0 lit 0 kwh 0 lit 0 kg	R 2.95	38 940 0 0 0 0 1 000 2 500 2 000 5 000 1 800
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime Sundry consumables: Clothing Other Water Water Misc. services: ash removal Annual Eskom connection cost:	0 kwh 0 lit 0 kwh 0 lit 0 kg	R 2.95	38 940 0 0 0 0 1 000 2 500 2 000 5 000 1 800
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime Sundry consumables: Clothing Other Water Misc. services: ash removal Annual Eskom connection cost:  Total Annual Power & Consumables Total annual maintenance cost	0 kwh 0 lit 0 kwh 0 lit 0 kg	R 2.95	38 940 0 0 0 0 1 000 2 500 2 000 5 000 1 800
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime Sundry consumables: Clothing Other Water Misc. services: ash removal Annual Eskom connection cost:  Total Annual Power & Consumables Total annual maintenance cost  Depreciation & Interest on Capital	0 kwh 0 lit 0 kg etc.	R 2.95	38 940 0 0 0 0 1 000 2 500 2 000 5 000 1 800
	Diesel 13 20 Other  Scrubbers:  Electricity Water Lime Sundry consumables: Clothing Other Water Misc. services: ash removal Annual Eskom connection cost:  Total Annual Power & Consumables Total annual maintenance cost	0 kwh 0 lit 0 kg etc. Cost	R 2.95	38 940 0 0 0 0 1 000 2 500 2 000 5 000 1 800

Est. Fixed	Est. Variable
Overheads	costs
R 120	R 480
	R 38 940
	0
	0
	0
R 1 000	
R 2 500	
R 2 000	
R 2 500	R 2 500
R 1 800	
R 8 300	R 8 300
R 1 500	
R 0	

						R 69 940
8	Personnel	costs	0	R 150 000	R 0	
П			0	R 80 000	R 0	
T			0.1	R 50 000	R 5 000	
T			1	R 24 000	R 24 000	
П						R 29 000
7	Total annu	al cost				R 98 940
At full capacity:		acity:				
	hours/day	days/week	weeks/yr			
	4	6	50	32 400	kgs/yr	R 3.0537
П				2 700	kas/mon	

R 29 000		
R 48 720	R 50 220	
R 4 000		
Annual capacity	32 400	
(kgs):		
Variable	D 4 55	
cost/kg:	R 1.55	

R 98 940

P	er	m	۱th	