HAZELWOOD
POWER CORPORATION

10 October 1995

ATTENTION: MR DOUG SCENEY

Resource Manager
Department of Agriculture, Energy and Minerals
115 Victoria Parade
PO Box 2145 MDC
Fitzroy 3065

Dear Sir,

HAZELWOOD POWER CORPORATION
MINE REHABILITATION COST ESTIMATES

Further to our letter 9 August 1995 (submission regarding 'ongoing' and 'end of life' rehabilitation cost estimates for HPC Mine) we were requested by Mr Doug Sceney to provide supporting information on how the estimates were arrived at.

Please find attached the working papers which provides this information.

This issue of using the sale of assets at the 'end of life' to offset final rehabilitation costs was discussed - we believe that this is quite in order, in fact HPC will have numerous additional assets (not included in our submission) which will be realisable. These assets include approximately $5 Million dollars of grazing land within our boundary which we have no current plans to mine.

Your faithfully,

Ian A Derham
General Manager, Mining Operations

att.

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HAZELWOOD POWER CORPORATION MINE

REHABILITATION OF LAND DISTURBED BY MINING

ESTIMATE OF COSTS - LIFE OF MINE

FROM JULY 1995

Current Exp ~$1M p.a.
Rehab 93-94 $ 410,000 - 21 ha
94-95 $ 882,000 21½ ha

1 EASTERN OVERBURDEN DUMP

(6 ha per yr)

AREA REMAINING - 150 HA

SHAPING @ $9000/HA	$1.35M	
SOWING @ $1100/HA	$0.17M	
DRAINAGE / WETLANDS	$1.00M	
TREES - 50,000 @ $8 ea	$0.40M	– high $ 0.15m
FENCING - 25KM @ $6/lin m	$0.20M	✓
CAP TIP / SUMPS	$1.00M	
IMPORT TOPSOIL		
150,000CM @ $20/CM	$3.00M	***TOTAL $7.1M***

2 MINE BATTERS

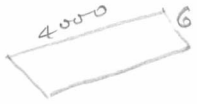
EASTERN BATTERS

OLD QUARRY - CART SURPLUS $0.9M

DBL / NE CORNER - 1500m

EARTHWORKS @ $333/lin m	$0.50M	
SOWING @ $11/lin m	$0.02M	$1.4M

NORTHERN BATTERS



REMAINING - 4,000m

Area = 240,000 m²
TIS = 240 000 x 0.1 = 24,000 m³ at $20/m³
= $ 480,000 for TIS.

EARTHWORKS	@ $333/lin m	$1.33M	✓
SOWING	@ $11/lin m	$0.04M	✓ $1.4M

Shaping 240,000 = 24 ha
$1000/day x 0.5 ha = 2000/ha
= $ 500,000 shaping.
Earthworks $1.0m c/f 1.3m

SOUTHERN BATTERS

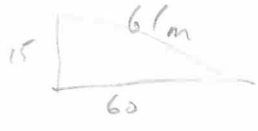
REMAINING - 2500m

EARTHORKS	@ $333/lin m	$0.83M	
SOWING	@ $11/lin m	$0.03M	$0.9M

STRIP/STOCKPILE/RECLAIM/SPREAD LOCAL TOPSOIL - BATTERS

80,000CM @ $11 $0.9M ***TOTAL $4.6M***

$ 11.7m.



Area = 7000m x 60 = 42ha

28'

MOC Appendix 3. Page: A 5/5/94

Dis - Establishment **No. 6** PJ~

F/S Network - Cost Summary. x1378

COSTS

Droppers :	46 off	x $6,500 ea	= 299,000
Press. Red. Tank :	4 off	x $14,000 ea	= 56,000
Stand Tanks :	2 off	x $ 5,000 ea	= 10,000
C & D Tanks :	2 off	x $ 5,000 ea	= 10,000
Bkgd Pipe Crossings :	82 off	x $3,400 ea	= 278,800
Anchor Blocks :	220 off	x $1,000 ea	= 220,000
Conc Pipe Stools :	4,230 off	x $60 ea	= 253,800
TOTAL			1,127,600

NO COST

All pipe fittings : valves, exp joints, hydrants, sprays. Pump Stations

REVENUE

ø200 / ø300 Pipe :	30,000 m	x $7/m	= 210,000
ø450, ø600, ø750 and larger Pipe :	29,600 m	x $10/m	= 296,000
			506,000

TOTAL COST : $621,600

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No. 7

Appendix 4

cjkm
ext 3990

5 May 1994

NOTE FOR: MINE MANAGER MORWELL

SHUTDOWN COST
6.6kV DISTRIBUTION SYSTEM

Attached is an estimate for the cost of dismantling and removing the entire 6.6kV distribution system at MOC.

It has been prepared on the basis of

- A fully developed South East Field
- All lines removed back to Feeder Supply Switches outside each of the three open cut substations
- All cable and distribution cubicles removed
- Interface point between plant and supply is the plant terminals - this is the supply end of the trailing cable for dredgers.

The net cost, taking account of expected salvage value is about $380k.

B. Morley

PLANT ENGINEER

att

MOC 6.6kV Distr'n System Dismantelling Costs & Salvage Value.

wp5apr94

Includes O/H lines equip, trailing cables,distribution cubicles & portable subs
System to be dismantelled from field up to first pole outside main Substations

Dismantelling Costs

1	Overhead line removal. $15,000/km. Route length - 46km.		Cost	690000
2	Cable Removal. Up to 200m lengths - $350/cable 200 to 400m lengths - $525/cable	35 lengths 13 lengths	Cost	19075
3	Distr Cub (7 off), Port Sub (9 off) Removal Crane, Truck, 4 Men, 4 days		Cost	8000
			Total	717075

Salvage Value

1	Concrete Poles, 345 off, @ $400/pole	138000
2	Timber Poles, 230 off, @ $90/pole	20700
3	Pole Transformers, 8100kva, @ $10/kva	81000
4	Distribution Cubs, 7 off salvagable, @ $4000/cub	28000
5	Pole JBs, est 50 salvagable, @ $500/JB	25000
6	Portable subs, 9 off, say 200kva, @ $10/kva	18000
7	Pole Switches, est 50 salvagable, @ $500/switch	25000
	Total	335700

Appendix 5

No. 8

BORE SEALING AND INSTALLATION DURING STAGED FLOODING

Costs for sealing of bores	$3.935 M
Costs for removal of M1 and M2 pumps	$101 k
Costs for removal of bore head works	$20 k
Costs for salvage of pumps	$20 k +++
Costs for removal of collection lines	$75 k
Pipe removal (cost neutral)	$0
Modelling costs for staged flooding (5 weeks)	$20 k
Installation of new bores (during staged flooding	$3.385 M
Installation of new pumps	$620 k
Disposal of Pumps (after flooding is completed)	$80 k +++
Capping of new bores	$350 k
TOTAL	**$8.386 M**

Reference: GEO - ENG
Gary Honeychurch
Attached Spreadsheet

ESCALATE TO $8.52

+++ = Revenue

BORE SEALING AND INSTALLATION DURING STAGED FLOODING
MORWELL OPEN CUT REHABILITATION

SEALING COSTS

	No.	Cost per bore	Cost
M1 Observation bores	70	8000	560000
M2 Observation Bores	115	8000	920000
M1 Pumping Bores	54	20000	1080000
M2 Pumping Bores	55	25000	1375000
SUBTOTAL			3935000

PUMP REMOVAL COSTS

	No.	Cost per bore	Cost
M2 Pumps	10	5000	50000
M1 Pumps	17	3000	51000
SUBTOTAL			101000

COLLECTION LINE REMOVAL

	No.	Cost per bore	Cost
Excavation	15	2000	30000
Dismantle	15	1000	15000
Remove	15	1000	15000
Tansport	15	1000	15000
SUBTOTAL			75000

NEW BORE INSTALLATION

	Depth	Cost/metre	No.	Cost
M2 Bore	250	1350	6	2025000
M1 Bore	170	800	10	1360000
SUBTOTAL				3385000

NEW PUMPS

	No.	Cost/pump	Cost
M2 Pump	6	70000	420000
M1 Pump	10	20000	200000
SUBTOTAL			620000

DISPOSAL OF PUMPS

	No.	Cost/pump	Cost
M2 Pump	6	10000	60000
M1 Pump	10	2000	20000
SUBTOTAL			80000

SEALING OF NEW BORES

	No.	Cost/pump	Cost
M2 Pump	6	25000	150000
M1 Pump	10	20000	200000
SUBTOTAL			350000

GRAND TOTAL	8386000

moc 6/5/94

Dis-Establishment - Buildings **No. 9** PJM

PERMANENT BLDGS ×6378.

6A Toilet Block	6 × 3m²	× 32.75/m²	=	600
Control Centre	30 × 30 m²	"	=	30,000
moc Ad in Bldg	100+40) × 15m²		=	4 60.
Stores Shed & Lean-to	40m × 20m²		=	26,200
Coal/Shift Storage Shed	30 × 20m²	"		19,700
F/S Shed & Lean-to	40 × 10m²	"	=	13,100
F/S Towers (2)	60 × 10 m²	"	=	19,700
Vulcanisers Shop	30 × 40 m²	"	=	39,300
No. 2 Gate Training Centre & Muster Rms.	70 × 20		=	45,900
Yal. Seam Village - Radio Shack.	10 × 10 m²	"	=	3,300
" " " - Green Shed	15 × 10 m²	"	=	5,000
Lehmens Shed	30 × 20 m²	"	=	19,700
Hose Wash	50 × 7 m²		=	11,500
				$238,600

PORTABLE BLDGS

PIDP Buildings.	20 × 10 m²	× 1,600ea	=	1,600
F/S Offices	20 × 10 m²	× 1,600ea	=	1,600
Atcos (70o/f)	6 × 8 m²	× 1,000ea	=	70,000
				$73,200

TOTAL $311,800

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MOC - Dis-Establishment **No. 11** 3/6/9:
Grass Lv Roads - Rehabilitate BJ:-
Cost Summary x6378

Bitumin Rds - Rehab.

5th Pivot Access Rd	500m	$35./m	= $17,500

Gravel Rds

Nth Bat Ramps Gr Lv - Lv 1	4,000m	x $25/m	= $100,000
Western Bat. Ramps Gr Lv - Lv 1	1,500m	x $25/m	= $37,500
Brodribb Rd	1,000m	x $25/m	= $25,000
HTA Ponds	3,000m	x $25/m	= $75,000
E. Bat. Access Tracks	3,000m	x $25/m	= $75,000
Drilling Depot Rd	1,500m	x $25/m	= $37,500

Hardstanding Areas / Car Parks

-Bitumin

Stores Bay 5:	1,400 m²	x $22/m²	= $30,800 ✓
moc Admin Bldg	600 m²	x $22/m²	= $13,200 ✓
Control Centre	2,000m²	x $22/m²	= $44,000 ✓
Geotech PT	4,600m²	x $22/m²	= $101,200 ✓

- Gravel

F/S / DIO Erection Site	30,000m²	x $12/m²	= $360,000
Coal Storage Shed Area	2,400m²	x $12/m²	= $28,800
Solar Dried Plant Area	15,000m²	x $12/m²	= $180,000.

Bitumin Rds Convert to Gravel 21.

Nth Perim Rd	2,800m	x $10	= $28,000
E. Perim Rd	2,600m	x $10	= $26,000
Hazelwood Rd	4,000m	x $10	= $40,000

TOTAL $1,219,000

ROUND UP TO $1.3M.

3/6/9
PJ~
x637

MOC - Dis-Establishment
Grass Lv Roads - Rehabilitate

Assumptions:

- Open cut developed to end of SEF.
- $'s at May 1994 Prices.
- Perimeter roads returned to gravel roads (where sealed)
- Perimeter roads and major access roads maintained.
- Labour rate $50/hr
- Hazelwood road returned to gravel road.

MOC

3/6/94
PJM
x637

Grass Lv Roads - Rehabilitate.

Bitumin Rds	Dist(m)	Width.(m)	Area.(m^2)	Status
Nth Perim Rd	2,800	8	22,400	Convert to Grav
E. Perim Rd	2,600	8	20,800	Convert to Grav
Sth Pivot Access Rd	500	8	4,000	Rehab
Hazelwood Rd.	4,000	8	32,000	Maintain
Gravel Rds				
Nth Perim Rd	2,000	10	20,000	Maintain
E. O/B Dump Perim Rd	3,000	8	24,000	Maintain
Sth Perim Rd	1,000	10	10,000	Maintain
Nth Batter Ramps Gr Lv - Lv 1	4,000	10	40,000	Rehab
Western Batter Ramp Gr Lv - Lv 1	1500	10	15,000	Rehab
Brodribb Rd	1,000	8	8,000	Rehab
HTA Ponds	3 000	8	24,000	Rehab
E. Bat. Access Tracks	3,000	8	24,000	Rehab
Drilling Depot Rd	1,500	8	12,000	Rehab
Baked Clay Rds				
Sth Perim Rd	2,000	10	20,000	Maintain
Western Perim Rd	4,000	10	40,000	Maintain
Hardstanding Areas / Car Parks.				
Stores: Bay 5	(20x70)		1,400	Rehab
MOC Admin Bldg.	(20x30)		600	Rehab
Control Centre	(20x100)		2,000	Rehab
F/S / DIO Erection Site.	(150x200)		30,000	Rehab
Coal Storage Shed Area	(40x60)		2,400	Rehab
Geotech PT.	(100x20)+(50x20)		4,600	Rehab
Solar Dried Plant Area	(100x150)		15,000	Rehab

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MOC - Dis. Establishment 3/6/94

Grass Lv Roads - Rehabilitate RJM x6378

Convert Bitumin Rds to Gravel Rds. (Rate)

Assume 200m of road convert (rip off top 50mm):

Grader 16G (rip & grade)	$100/hr x 4 hrs	= 400
FEL	$80/hr x 4 hrs	= 320
Trucks (6x6)	2 x $50/hr x 4 hrs	= 400 (assume short haul).
Labour	$50/hr x 14 hrs	= 700
Roller	$40/hr x 2 hrs	= 80
Water Cart	$80/hr x 2 hrs	= 160
TOTAL		2,060

Rate ∴ Say $1,050 /100m
$10/m

Rehab Gravel Roads (Rate).

Assume 200m of road.

Excavator	$150/hr x 8 hrs	= 1,200
Dozer (D8)	$100/hr x 8 hrs	= 800
Grader (16G)	$100/hr x 2 hrs	= 200
Labour	$50/hr x 16 hrs	= 800
Topsoil & grass.	($ 20/lin metre Supply & Place).	= 2,000
		5,000

Rate $5,000 /200m.
$25/m

Method :- Excavate trench along side of road.
- Doze base of road into trench
- Material from trench (clay) doze over works area and grade to suit
- Spread topsoil and grass.

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Rehab Bitumin Roads (Rate)

Remove bitumin $10/m (from convert Bit. Rd to Gravel)
Rehab Gravel Rd $25/m (from Rehab Gravel Rd).
$35/m

5.

MOC - Dis-Establishment 3/6/94

Grass Lv Roads - Rehabilitate 15m

x6378

Rehab Hardstanding (Gravel) Areas.

Method :1.- Remove (= 200mm (assumed depth) of rock.
2.- Doze to natural landscape form
3.- Spread topsoil and grass.

1. Removal.

Cordells : Jan 1992 Building cost guide.

- Excavate by Machine
- reduce level by machine load spoil onto truck, cart 10km and dispose (in soft rock) Page 38.

$27.27 /m³ for 2000 m³.

x 1.5 (for increase inflation & on-site contractor)

$40 /m³

Given 200mm depth excavate

∴ $8 /m²

2. Doze to natural landscape form.

Assume area. 100m x 10m

Dozer (D8)	$100/hr x 8 hrs	= 800	
Labour	$ 50/hr x 8 hrs	= 400	
		$1200	/1000 m²

∴ $1.2 /m²

3. Spread topsoil and grass.

$20 / linear metre where width 10m.

∴ $2 /m²

Rehab Hardstanding (Gravel) Areas

8 + 1.2 + 2 = 11.2 say $12 /m².

Rehab Car Parks 17.

Remove Bitumin	$10 /m²	(from Convert B.t. Rds to Gravel)
Rehab Base material	$12 /m²	(from Rehab Hardstanding (Gravel) Areas).
	$22 /m²	