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VULTURE OPERATING COSTS
Based on 1,200 tpd
LABOR

Title	No.	Rate	Fringe	Hours /day	Days /week	Cost /week	Cost /ton
Manager	1	$55,000	30%	10	5.5	$1,375	$0.23
Eq.Operator Maintenance & Watchman	1	$100.00		10	5	$5,000	$0.83
Agg.Operator	1	$13.00	30%	10	5	~~$845~~ 930	$0.14
Rec.Operator	1	$13.00	30%	10	5	$845 930	$0.14
Utility	2	$10.00	30%	8	5	$1,300	$0.22
Mechanic	1	$12.00	30%	8	5	$780	$0.13
				Totals		$10,145 10,315	$1.69 1.72

FUEL & REAGENTS

Fuel, power	$0.21
Fuel, melting	$0.01
Cement	$0.54
Cyanide	$0.75
Lime	$0.15
Water Chemicals	$0.03
Zinc Dust	$0.06
Lead Nitrate	$0.01
Precoat	$0.01
Fluxes, melting	$0.01
Totals	$1.78

ADVANCE ROYALTY: V.M.P.INC.

Based on $5,500 per month $0.23

EQUIPMENT RENTALS
Generators at $680 and $1400 per month $0.09

REFINING CHARGES
136.5 ounces per week
Based on minimum treatment charge of $250 $0.04

TOTAL OPERATING COSTS $3.83 3.86

VULTURE OPERATING COSTS
Based on 1,200 tpd
LABOR

Title	No.	Rate	Fringe	Hours /day	Days /week	Cost /week	Cost /ton
Manager	1	$55,000	30%	10	5.5	$1,375	$0.23
Eq.Operator Maintenance & Watchman	1	$100.00		10	5	$5,000	$0.83
Agg.Operator	1	$13.00	30%	10	5	$845	$0.14
Rec.Operator	1	$13.00	30%	10	5	$845	$0.14
Utility	2	$10.00	30%	8	5	$1,300	$0.22
Mechanic	1	$12.00	30%	8	5	$780	$0.13
				Totals		$10,145	$1.69

FUEL & REAGENTS

Fuel, power	$0.21
Fuel, melting	$0.01
Cement	$0.54
Cyanide	$0.75
Lime	$0.15
Water Chemicals	$0.03
Zinc Dust	$0.06
Lead Nitrate	$0.01
Precoat	$0.01
Fluxes, melting	$0.01
Totals	$1.78

ADVANCE ROYALTY: V.M.P.INC.

Based on $5,500 per month $0.23

EQUIPMENT RENTALS
Generators at $680 and $1400 per month $0.09

REFINING CHARGES
136.5 ounces per week $0.04
Based on minimum treatment charge of $250

TOTAL OPERATING COSTS $3.83

VULTURE OPERATING COSTS
Based on 1,000 tpd
LABOR

Title	No.	Rate	Fringe	Hours /day	Days /week	Cost /week	Cost /ton
Manager	1	$55,000	30%	10	5.5	$1,375	$0.28
Eq.Operator Maintenance & Watchman	1	$100.00		10	5	$5,000	$1.00
Agg.Operator	1	$13.00	30%	10	5	930 $845	$0.17 0.186
Rec.Operator	1	$13.00	30%	10	5	930 $845	$0.17 0.186
Utility	2	$10.00	30%	8	5	$1,300	$0.26
Mechanic	1	$12.00	30%	8	5	$780	$0.16
				Totals		10,315 $10,145	$2.03 2.06

FUEL & REAGENTS

Fuel, power	$0.21
Fuel, melting	$0.01
Cement	$0.54
Cyanide	$0.75
Lime	$0.15
Water Chemicals	$0.03
Zinc Dust	$0.06
Lead Nitrate	$0.01
Precoat	$0.01
Fluxes, melting	$0.01
Totals	$1.78

EQUIPMENT RENTALS
Generators at $680 and $1400 per month $0.10

ADVANCE ROYALTY: V.M.P.INC.

Based on $5,500 per month $0.28

REFINING CHARGES
136.5 ounces per week $0.05
Based on minimum treatment charge of $250

TOTAL OPERATING COSTS $4.24 4.27

Vulture Operating Costs
Based on 1,000 tpd
LABOR

Employee	Rate	Taxes /Fringe	Hours /day	Days /week	Cost /week	Cost /ton
D. Allen	$55,000	20%			$1,269	$0.25
G. Helton	$20.00	11%	10	5	$1,110	$0.22
K. Wells	$10.50	20%	10	5	$630	$0.13
E. Allen	$10.00	20%	10	5	$600	$0.12
T. Knapp	$8.00	20%	10	5	$480	$0.10
H. Salazar	$8.00	20%	10	5	$480	$0.10
Equipment	$80.00	5%	5	5	$4,200	$0.84
			Totals		$8,769	$1.75

FUEL & REAGENTS

Fuel, power	$0.21
Fuel, melting	$0.01
Cement	$0.44
Cyanide	$0.90
Lime	$0.19
Water Chemicals	$0.03
Zinc Dust	$0.06
Lead Nitrate	$0.01
Precoat	$0.01
Fluxes, melting	$0.01
Totals	$1.87

EQUIPMENT RENTALS

Generators: $680 and $1400 per month $0.11

ADVANCE ROYALTY: V.M.P.INC.

Based on $5,500 per month $0.28

Total Direct Operating Costs $4.01

Indirect Costs $0.50

TOTAL OPERATING COSTS	$4.51

A.F. Budge (Mining) Limited

TO: R.R. Short

DATE: January 12, 1990

FROM: D.H. Allen

COPIES: A.F. Budge
File
C.A. O'Brien

SUBJECT: Carbon Columns at the Vulture

Cost

Fabrication of columns	$ 19,500
Freight	500
Installation	2,000
Carbon charges, 2,500 lbs @ $1.00/lb	2,500
Refinery charges for gold recovery	1,900
Freight	350
	$ 26,750

At a gold price of $400/ounce, we would need to recover 70 additional ounces to pay for this investment.

Proposed Strategy

The Merrill-Crowe process is not as efficient as the carbon in the recovery of gold from low-grade solutions. The Merrill-Crowe will require more zinc in order to precipitate the gold and more fluxes with which to treat the precipitate. The recovery may also drop off, probably as much as 10%, with the Merrill-Crowe.

However, we can buy a lot of zinc and fluxes for the same amount of money. We would not have the added liability for the disposal of column columns after the project is completed.

Best estimates are that, once we start to detoxify the leach pads, we could recover about 200 ounces. Degussa has been contacted and will be assisting in the detoxification process. Total cost is estimated at $30,000. About 90% of this cost is reagents, i.e. peroxide, to neutralize the cyanide.

Unless something changes in the not-too-distant future to make the installation of carbon columns more efficient or beneficial, we will continue using the Merrill-Crowe system.

EQUIPMENT INVESTMENT ANALYSIS PROGRAM

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This comparative analysis report provides an estimate of the costs associated with owning and operating the equipment compared. Because of the many variables involved in such an analysis, Caterpillar does not represent or warrant, expressly or implicitly, the accuracy of the analysis or that the indicated results will in fact be achieved. The user must obtain financial counsel to determine the actual effect of a particular purchase decision.

Special Report

PREPARED FOR: VULTURE BY: EMPIRE

TOTAL PRODUCTION POTENTIAL	CAT 980	CAT 966	CRITICAL COMPARISONS	
Machine Operating Hours	2,080	2,080	0	0 %
x Est. TONS/Hour	214.80	164.30	50.50	31 %
Annual TONS	446,784	341,744	105,040	31 %
BackUp Operating Hours	0	0		
x BackUp TONS/Hour	214.80	164.30		
Annual BackUp TONS	0	0	0	0 %
Total TONS/Year	446,784	341,744	105,040	31 %
x Years Useful Life	1	1		
TOTAL PRODUCTION POTENTIAL	446,784	341,744	105,040	31 %

COST OF PRODUCTION	CAT 980	CAT 966	CRITICAL COMPARISONS	
Total Operating Expenses	$ 70,195	64,662	$ 5,533	9 %
- Tax Savings	23,866	21,985		
After Tax Operating Cost	46,329	42,677		
+ Acquisition Cost	117,600	87,000	30,600	35 %
Total After Tax	$ 163,929	129,677	$ 34,252	26 %
Total Production Potential TONS	446,784	341,744	105,040	31 %
After Tax / TONS Operating Cost	0.1037	0.1249	-0.0212	-17 %
+ Acquisition Cost	0.2632	0.2546	0.0086	3 %
COST OF PRODUCTION	$ 0.3669	0.3795	$ -0.0125	-3 %

COST PER OPERATING HOUR		CAT 980	CAT 966		CRITICAL COMPARISONS	
Total Oper. Cost	$	70,195	64,662	$	5,533	9 %
(divided by)						
Total Machine Operating Hours		2,080	2,080		0	0 %
(equals)						
Before Tax Operating Cost per Hour	$	33.75	31.09	$	2.66	9 %
After Tax Operating Cost per Hour	$	22.27	20.52	$	1.76	9 %
(plus)						
After Tax Acquisition Cost per Hour	$	56.54	41.83	$	14.71	35 %
(equals)						
TOTAL AFTER TAX COST PER OPER. HOUR	$	78.81	62.34	$	16.47	26 %

Vulture - DEQ - 1/26/80

Tim - Mike, Gene Mary.

Mike -
Suggesting that samples would be taken under the pad to determine extent of leak.

Mike - pen became were in violation of permit.

Dale - Proposes we flush heaps with solution not adding anything. flush pads until cyanide level drops - then add hydrogen peroxide.

letter from ADEQ would suffice as variance to permit.

needs to determine extend of contamination after detoxification

Wants a proposal.

goal are to determine the extent of contamination

test in areas of most expected contamination

1) Proposal describing detox methods, proceedure
time tabl. when we start.

2). determine cyanide loss?
water balance –

3. Proposal for sampling procedure

EQUIPMENT INVESTMENT ANALYSIS PROGRAM

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This comparative analysis report provides an estimate of the costs associated with owning and operating the equipment compared. Because of the many variables involved in such an analysis, Caterpillar does not represent or warrant, expressly or implicitly, the accuracy of the analysis or that the indicated results will in fact be achieved. The user must obtain financial counsel to determine the actual effect of a particular purchase decision.

Special Report

PREPARED FOR: VULTURE MINE BY: EMPIRE

CASH PAID OUT AND TAX SAVINGS	CAT 613	CAT 615	CRITICAL COMPARISONS	
Transaction Price	0	0	0	0 %
- Trade-in Allowance				
+ Interest Expense	0	0		
+ Lease Payments	59,400	94,800		
+ Insurance/Local Tax	0	0		
TOTAL CASH PAID OUT $	59,400	94,800	$ -35,400	-37 %
Investment Tax Credit	0	0		
+ Depreciation	0	0		
+ Interest Expense	0	0		
+ Lease Payments	0	0		
+ Insurance/Local Tax	0	0		
TOTAL TAX SAVINGS $	0	0	$ 0	0 %

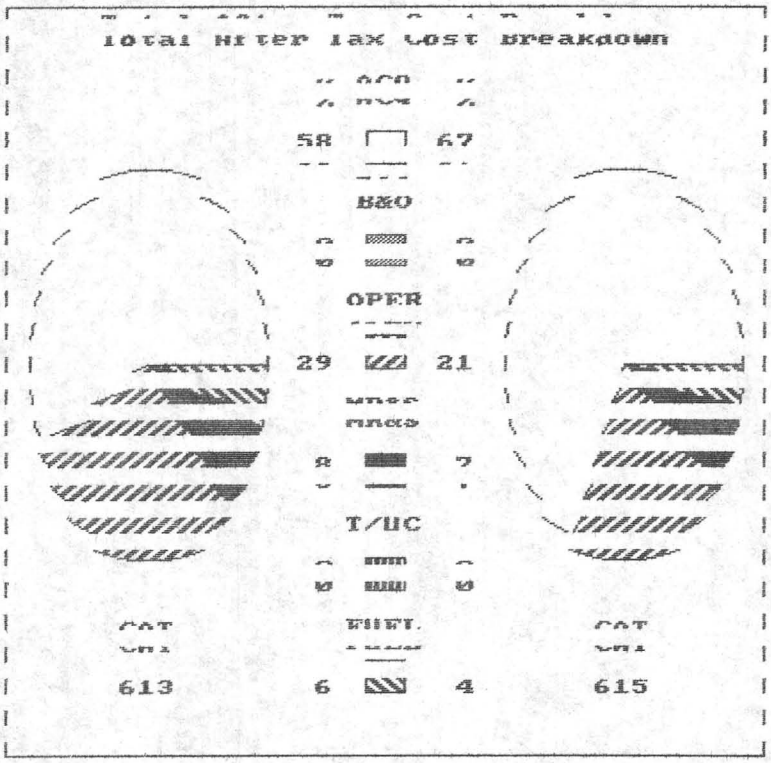
OPERATING HOURS SUMMARY	CAT 613	CAT 615	CRITICAL COMPARISONS	
Availability first year	80.00 %	80.00 %		
last year	80.00 %	80.00 %		
Average Availability	80.00 %	80.00 %	0.00	0 %
Annual Scheduled Hours	2,600	2,600		
Average Utilization	80.00 %	80.00 %		
MACHINE OPERATING HOURS PER YEAR	2,080	2,080	0	0 %
MINIMUM OPERATING HOURS REQUIRED PER YEAR	2,080	2,080		
Machine Operating Hours	2,080	2,080		
Backup Hours Required	0	0	0	0 %
TOTAL OPERATING HOURS PER YEAR	2,080	2,080		

MACHINE OPERATING COSTS		CAT 613	CAT 615		CRITICAL COMPARISONS	
Fuel Consumption/Hour		5.5	6.0			
x Price per Gallon		0.76	0.76			
FUEL COST PER HOUR	$	4.18	4.56		$ -0.38	-8 %
OILS,FILTERS,GREASE	$	1.57	1.76		$ -0.19	-11 %
Est Tire or U/C Life		5,000	5,000		0	0 %
Replacement Cost	$	5,000	5,000			
Undercarriage Only:						
I Factor						
A Factor						
Z Factor						
Basic Factor						
TIRE/UNDERCARRIAGE COST PER HOUR	$	0.00	0.00		$ 0.00	0 %

MACHINE OPERATING COSTS (continued)		CAT 613	CAT 615		CRITICAL COMPARISONS	
Basic Repair/Hr	$	3.00	4.00			
Extended Life Mult.		1.00	1.00			
REPAIR COSTS/HOUR	$	3.00	4.00		$ -1.00	-25 %
SPECIAL ITEMS COST PER HOUR	$	1.00	1.00		$ 0.00	0 %
SUMMARY OF MACHINE OPERATING COSTS PER HOUR:						
Fuel Cost		4.18	4.56			
Oil,Filters & Grease		1.57	1.76			
Tire or U/C Cost		0.00	0.00			
Repair Cost		3.00	4.00			
Special Items		1.00	1.00			
Total	$	9.75	11.32		$ -1.57	-14 %

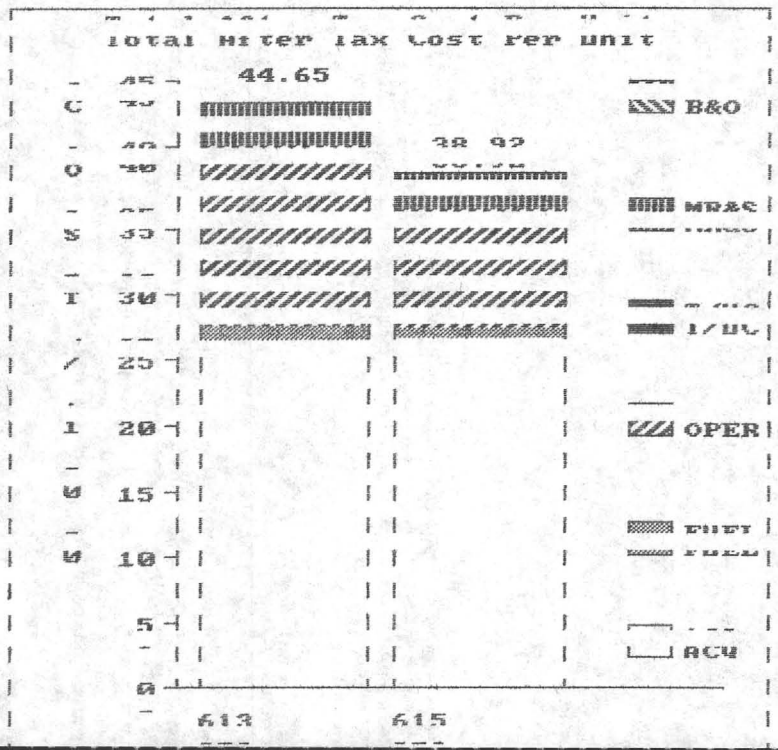
OPERATING EXPENSE SUMMARY		CAT 613	CAT 615		CRITICAL COMPARISONS	
Machine Operating Hours per Year		2,080	2,080			
x Machine Cost/Hour		9.75	11.32	$	-1.57	-14 %
MACHINE OPERATING COST PER YEAR	$	20,280	23,546	$	-3,266	-14 %
+ BackUp Cost/Year		0	0		0	0 %
MACHINE OPERATING & BACKUP COST/YEAR	$	20,280	23,546	$	-3,266	-14 %
x Years of Use		1	1			
TOTAL COST MACHINE OPERATING & BACKUP	$	20,280	23,546	$	-3,266	-14 %
+ Operator Wages		45,630	45,630			
+ Overhead Costs		0	0			
TOTAL OPER. COST	$	65,910	69,176	$	-3,266	-5 %

COST PER OPERATING HOUR		CAT 613	CAT 615		CRITICAL COMPARISONS	
Total Oper. Cost	$	65,910	69,176	$	-3,266	-5 %
(divided by)						
Total Machine Operating Hours		2,080	2,080		0	0 %
(equals)						
Before Tax Operating Cost per Hour	$	31.69	33.26	$	-1.57	-5 %
After Tax Operating Cost per Hour	$	20.91	21.95	$	-1.04	-5 %
(plus)						
After Tax Acquisition Cost per Hour	$	28.56	45.58	$	-17.02	-37 %
(equals)						
TOTAL AFTER TAX COST PER OPER. HOUR	$	49.47	67.53	$	-18.06	-27 %



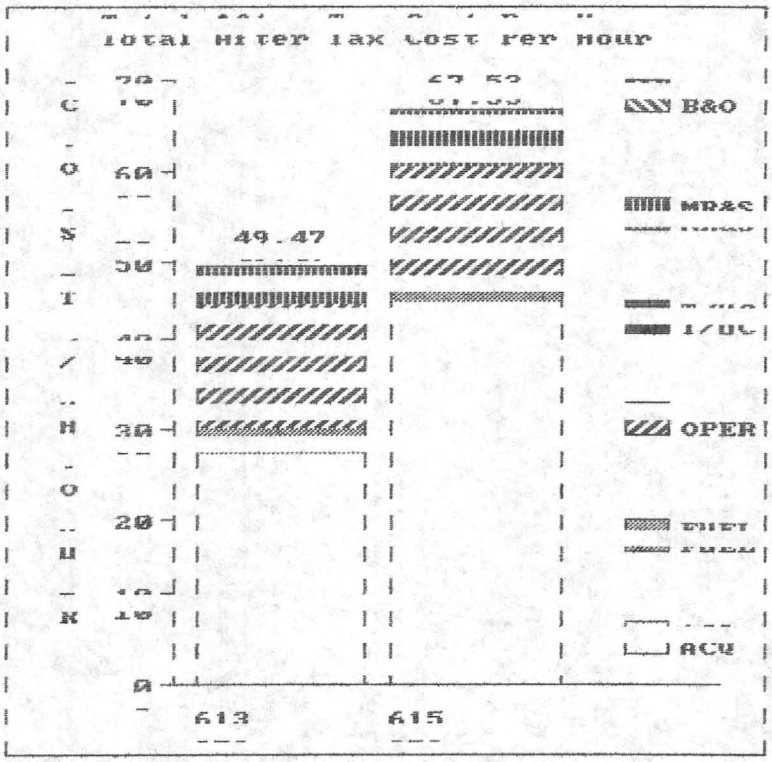
TOTAL PRODUCTION POTENTIAL	CAT 613	CAT 615	CRITICAL COMPARISONS	
Machine Operating Hours	2,080	2,080	0	0 %
x Est. TONS/Hour	110.80	173.50	-62.70	-36 %
Annual TONS	230,464	360,880	-130,416	-36 %
BackUp Operating Hours	0	0		
x BackUp TONS/Hour	110.80	173.50		
Annual BackUp TONS	0	0	0	0 %
Total TONS/Year	230,464	360,880	-130,416	-36 %
x Years Useful Life	1	1		
TOTAL PRODUCTION POTENTIAL	230,464	360,880	-130,416	-36 %

COST OF PRODUCTION		CAT 613	CAT 615	COMPARISONS	
Total Operating Expenses	$	65,910	69,176	$ -3,266	-5 %
- Tax Savings		22,409	23,520		
After Tax Operating Cost		43,501	45,656		
+ Acquisition Cost		59,400	94,800	-35,400	-37 %
Total After Tax	$	102,901	140,456	$ -37,555	-27 %
Total Production Potential TONS		230,464	360,880	-130,416	-36 %
After Tax / TONS Operating Cost		0.1888	0.1265	0.0622	49 %
+ Acquisition Cost		0.2577	0.2627	-0.0050	-2 %
COST OF PRODUCTION	$	0.4465	0.3892	$ 0.0573	15 %



EQUIPMENT INVESTMENT ANALYSIS

08-NOV-88



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BC-LAMPERT

Due to the many variables involved in earthmoving projects and the consequent possibility of inadvertent errors or omissions in preparing reports of this character, neither Caterpillar Tractor Co. nor the dealer can or does represent or warrant, expressly or implicitly, either the accuracy of this report or that the Caterpillar or competitive equipment referred to in the report will in fact achieve the performance indicated on the job to which this report relates.

Simulate Summary

No.	Hauler	Course	Loader	Payload, LB.	Cycle Time,Mn	Prod./ 60Min.Hr	Oper.Hr Req'd	Cost/ TON	Speed MPH
1	613B	ORE#1		26,000	7.04	110.8	11	0.000	12.6
2	615	ORE#1		38,400	6.64	173.5	7	0.000	13.3
3	D250B	ORE#1	966	50,000	8.54	175.5	7	0.000	10.4

Mach. Code	Model Ident.	Empty Weight	Payload LB.	Tire Size	Corrections Type	Speed	Alt.	O&O Cost $/Hr
C101	613B	31,210	26,000	18.00-25	E2	1.00	1.00	

Engine	FWHP	Transmission
3208	150	4SPD-PS

Course ORE#1
Desc. ORE HAUL 1 TO HOPPER

Density 0 LB. /BCY
Quantity 1,200

LOAD TIME =	0.90	LOADER =		
HAUL TIME =	3.62	PAYLOAD =	13.0	TON
DUMP TIME =	0.70			
MANV. TIME =	0.00	PROD./60 MIN.HR. =	110.8	TON
RETURN TIME =	1.82			
CYCLE TIME =	7.04	OPER. MIN/HOUR =	60	MIN
TRIPS/HOUR =	8.53	PROD./60 MIN.HR. =	110.8	TON
CYCLE DIST. =	7,800			
AVG.SPEED =	12.6	OPER. HR. REQ'D. =	11	
AVG.SPEED 60 MIN =	12.6	COST PER TON =	0.000	

RUN NO. 1 MODEL 613B — HAUL ROAD
INITIAL VEHICLE SPEED 3 MPH

SEG NO.	DIST FEET	ROLL RES	GRADE %	VEL LIMIT MPH	MAX SS VEL MPH	TOP VEL MPH	LAST VEL MPH	ACCUM TIME MIN
1	3,900	4.00	2.00	0.00	12.52	12.52	3.00	3.62

RUN NO. 1 MODEL 613B — RETURN ROAD
INITIAL VEHICLE SPEED 0 MPH

SEG NO.	DIST FEET	ROLL RES	GRADE %	VEL LIMIT MPH	MAX SS VEL MPH	TOP VEL MPH	LAST VEL MPH	ACCUM TIME MIN
1	3,900	4.00	-2.00	0.00	26.73	26.73	0.00	1.82

CATERPILLAR INC.
VEHICLE SIMULATION ANALYSIS

Mach. Code	Model Ident.	Empty Weight	Payload LB.	Tire Size	Corrections Type	Speed	Alt.	O&O Cost $/Hr
C102	615	51,590	38,400	26.50-25	RA	1.00	1.00	

Engine	FWHP	Transmission
3306	250	6SPD-PS

Course ORE#1
Desc. ORE HAUL 1 TO HOPPER

Density 0 LB. /BCY
Quantity 1,200

LOAD TIME =	0.90	LOADER =		
HAUL TIME =	3.28	PAYLOAD =	19.2	TON
DUMP TIME =	0.70			
MANV. TIME =	0.00	PROD./60 MIN.HR. =	173.5	TON
RETURN TIME =	1.76			
CYCLE TIME =	6.64	OPER. MIN/HOUR =	60	MIN
TRIPS/HOUR =	9.03	PROD./60 MIN.HR. =	173.5	TON
CYCLE DIST. =	7,800			
AVG.SPEED =	13.3	OPER. HR. REQ'D. =	7	
AVG.SPEED 60 MIN =	13.3	COST PER TON =	0.000	

RUN NO. 2 MODEL 615 — HAUL ROAD
INITIAL VEHICLE SPEED 3 MPH

SEG NO.	DIST FEET	ROLL RES	GRADE %	VEL LIMIT MPH	MAX SS VEL MPH	TOP VEL MPH	LAST VEL MPH	ACCUM TIME MIN
1	3,900	4.00	2.00	0.00	14.33	14.33	3.00	3.28

RUN NO. 2 MODEL 615 — RETURN ROAD
INITIAL VEHICLE SPEED 0 MPH

SEG NO.	DIST FEET	ROLL RES	GRADE %	VEL LIMIT MPH	MAX SS VEL MPH	TOP VEL MPH	LAST VEL MPH	ACCUM TIME MIN
1	3,900	4.00	-2.00	0.00	27.94	27.94	0.00	1.76

Mach. Code	Model Ident.	Empty Weight	Payload LB.	Tire Size	Corrections Type	Speed	Alt.	O&O Cost $/Hr
C214	D250B	38,400	50,000	23.50-25		1.00	1.00	

Engine	FWHP	Transmission
3306	218	5SPD-PS/LU

Course ORE#1
Desc. ORE HAUL 1 TO HOPPER

Density 0 LB. /BCY
Quantity 1,200

LOAD TIME =	1.75	LOADER =	966	
HAUL TIME =	4.02	PAYLOAD =	25.0	TON
DUMP TIME =	1.20			
MANV. TIME =	0.00	PROD./60 MIN.HR. =	175.5	TON
RETURN TIME =	1.57			
CYCLE TIME =	8.54	OPER. MIN/HOUR =	60	MIN
TRIPS/HOUR =	7.02	PROD./60 MIN.HR. =	175.5	TON
CYCLE DIST. =	7,800			
AVG.SPEED =	10.4	OPER. HR. REQ'D. =	7	
AVG.SPEED 60 MIN =	10.4	COST PER TON =	0.000	

RUN NO. 3 MODEL D250B — HAUL ROAD
INITIAL VEHICLE SPEED 3 MPH

SEG NO.	DIST FEET	ROLL RES	GRADE %	VEL LIMIT MPH	MAX SS VEL MPH	TOP VEL MPH	LAST VEL MPH	ACCUM TIME MIN
1	3,900	4.00	2.00	0.00	11.25	11.25	3.00	4.02

RUN NO. 3 MODEL D250B — RETURN ROAD
INITIAL VEHICLE SPEED 0 MPH

SEG NO.	DIST FEET	ROLL RES	GRADE %	VEL LIMIT MPH	MAX SS VEL MPH	TOP VEL MPH	LAST VEL MPH	ACCUM TIME MIN
1	3,900	4.00	-2.00	0.00	32.64	32.64	0.00	1.57

JM

Johnson Matthe

9am +2 for us.
draw samples
1 assay (J.C.)
3rd held (umpire)
Au .1% splitting limits
Ag .25%

ay 20, 1988

A.F. Budge Mining LTD
Suite 111B East
7340 Shoeman Lane
Scottsdale, AZ 85251
Attn: Carole O'Brien

Dear Carole:

I am writing in response to your request for terms on your dore. As I understand it, you anticipate shipping dore assaying 90% gold, producing from 150 to 200 oz.t. gold a week. Terms on that material would be as follows:

Treatment:	$0.75 oz.t. net weight received
Metal Return:	Gold 99.5%
	Silver 98.0%
Minimum Refining Chg:	$250.00
Final Settlement:	15 working days from date of receipt

If, in the future, you have any questions, don't hesitate to call.

Regards,

JOHNSON MATTHEY INC.

Bernie Kowalski

Bernie Kowalski
Customer Service Representative

BK/clp

PRECIOUS METALS DIVISION
4601 West 2100 South, Salt Lake City, Utah 84120, (801) 972-6466, (801) 974-5928

VULTURE OPERATING COSTS
Based on 1,000 tpd
LABOR

Title	No.	Rate	Fringe	Hours /day	Days /week	Cost /week	Cost /ton
Manager	1	$55,000	30%	10	5.5	$1,375	$0.28
Eq.Operator Maintenance & Watchman	1	$100.00		10	5	$5,000	$1.00
Agg.Operator	1	$13.00	30%	10	5	$845	$0.17
Rec.Operator	1	$13.00	30%	10	5	$845	$0.17
Utility	2	$10.00	30%	8	5	$1,300	$0.26
Mechanic	1	$12.00	30%	8	5	$780	$0.16
				Totals		$10,145	$2.03

FUEL & REAGENTS

Fuel, power	$0.21
Fuel, melting	$0.01
Cement	$0.54
Cyanide	$0.75
Lime	$0.15
Water Chemicals	$0.03
Zinc Dust	$0.06
Lead Nitrate	$0.01
Precoat	$0.01
Fluxes, melting	$0.01
Totals	$1.78

EQUIPMENT RENTALS
Generators at $680 and $1400 per month $0.10

ADVANCE ROYALTY: V.M.P.INC.

Based on $5,500 per month $0.28

REFINING CHARGES
136.5 ounces per week
Based on minimum treatment charge of $250 $0.05

TOTAL OPERATING COSTS $4.24

Construction and Capital Cost Estimate
Heap Leach Facility Design
Vulture Mine Project

Summary

April 15, 1988 (Replaces Summary of February 15, 1988)

A. Construction: Diversion Wash, Pad, Ponds	$ 252,000
B. Extraction Plant (includes agglomeration & stacking equipment)	$ 255,000
Sub-total	$ 507,000

225,00 tons of tailings
0.045 oz/ton gold
70% recovery
7100 recoverable ounces

Gross Revenues at $450/ounce	$ 3,195,000	
Direct Operating costs at $4.30/ton	- 967,500	
Capital & Construction	- 507,000	
Recovery of costs expended to 4-15-88	- 900,000	(includes prepaid equipment)
Net Profit on Project	$ 820,500	
Operating Profit	$ 1,720,500	

(Note: Have not included Geotechnical Engineering Costs which will reduce operating profit to probably $1,700,000.)

Vulture Heap Leach Facility
Capital Cost Estimate
April 14, 1988

1.	Merrill Crowe System	$ 44,750.00	
2.	Furnace	$ 9,799.00	
3.	Crucible	$ 292.00	(*)
4.	Slag pots and cart	$ 2,975.00	
5.	Feed Hopper	$ 6,250.00	
6.	Agglomerator Feed Belt	$ 5,000.00	
7.	Reagent Feeders	$ 8,400.00	
8.	Agglomerator, 7 x 33	$ 12,000.00	
9.	Takeway & Curing Belt	$ 5,000.00	
10.	Radial Stacker	$ 17,500.00	
11.	Conveyor Belts	$ 45,000.00	
12.	Pregnant Solution Pump	$ 3,800.00	
13.	Clarifier Filter	$ 17,000.00	(*)
14.	Filter Press, Plate & Frame	$ 10,000.00	(*)
15.	Barren Solution Pump	$ 3,800.00	
16.	Spray Pump	$ 5,500.00	
17.	Silos for cement and lime	$ 12,000.00	
18.	Scrubber for furnace	$ 7,500.00	
	Sub-total	$ 216,566.00	
	Building 25 x 20; preengineered	$ 25,000.00	
	Electrical	$ 6,000.00	
	Process piping in plant	$ 2,000.00	
	Spray piping	$ 7,500.00	
	Sub-total	$ 40,500.00	
	Total	$ 257,066.00	
	Prepaid	40,750.00	
	Balance	$ 216,316.00	
	Engineering & Final erection	$ 20,000.00	
		$ 236,316.00	
	Contingency	18,684.00	
	Total Capital	$ 255,000.00	

VULTURE OPERATING COSTS

LABOR

Title	No.	Rate	Fringe	Hrs /day	Days /week	Cost /week	Cost /ton
Foreman	1	$48,000	30%	10	5.5	$1350.	$0.27
Oper,Eqip	1	$13.00/hr	30%	10	5	845	.169
Oper. Agg	1	11.50	30	10	5	747.50	.15
Oper, Rec.	2	11.50	30	8	6	1554.80	.31
Utility	2	10.50	30	8	6	1419.60	.284
Mech.	1	13.00	30	10	5	845.00	.27
Watchman	1	20,000/yr	30	As required		500.00	.10
Total Labor						$ 7111.9	$1.553

FUEL & REAGENTS

Fuel, power	$ 0.21
Fuel, melting	.01
Cement	.54
Cyanide	.60
Lime	.15
Water Chemicals	.03
Zinc Dust	.06
Lead Nitrate	.01
Precoat	.01
Fluxes,melting	.01
Total Fuel and Reagents	$ 1.63

MAINTENANCE

Parts and Supplies	$ 0.20

HEAVY EARTHMOVER

	$ 0.41
TOTAL Direct Operating Costs	$ 3.79
Indirect	$ 0.50
TOTAL OPERATING COSTS (for CEC)	$ 4.29

Shipment Date	Collection Note #	Ounces Gold	Ounces Silver	Material	"Net" to Budge
	540	142.84	469.19	Dore	$61,524.78
	547	11.81	58.17	Precip.	$4,730.61
	570	8.03	24.21	Dore	$2,944.16
	571	106.83	464.84	Precip.	$44,746.01
	597	17.68	63.19	Dore	$6,872.67
	601	169.78	554.52	Precip.	$67,518.86
02-03-89	626	174.41	603.43	Dore	$67,527.32
02-10-89	627	88.85	289.92	Dore	$34,052.67
02-17-89	631	51.58	192.03	Dore	$20,490.40
02-24-89	639	87.21	330.59	Dore	$34,958.64
03-03-89	645	47.40	180.70	Dore	$18,743.70
03-10-89	656	72.33	216.49	Dore	$28,751.43
03-17-89	663	62.76	163.83	Dore	$24,678.60
03-24-89	670	124.38	318.24	Dore	$48,725.34
03-31-89	681	95.99	268.31	Dore	$36,869.39
04-07-89	686	56.96	166.48	Dore	$21,935.93
04-14-89	696	65.18	196.49	Dore	$25,059.07
04-21-89	711	53.38	164.93	Dore	$20,098.93
04-28-89	715	37.08	130.10	Dore	$13,919.17
05-12-89	732	125.38	395.21	Dore	$46,958.62
05-19-89	742	93.32	271.23	Dore	$34,245.06
06-01-89	758	80.10	274.50	Dore	$28,969.62
06-09-89	762	59.52	164.05	Dore	$21,674.47
06-16-89					
06-23-89	777	110.48	322.41	Dore	$41,391.35
06-30-89	778	49.68	150.19	Dore	$18,710.67
07-10-89	795	49.66	155.17	Dore	$18,284.52
07-17-89					
07-31-89	810	136.73	397.40	Dore	$49,890.99
08-07-89	814	85.30	243.75	Dore	$31,159.60
08-28-89	838	129.89	357.65	Dore	$46,874.93
09-01-89	846	60.24	156.45	Dore	$21,384.70
09-14-89	857	114.58	291.36	Dore	$42,138.99
09-22-89	867	76.40	190.57	Dore	$27,836.31
09-29-89	872	86.29	217.15	Dore	$31,196.69
	856	25.31	67.72	Slag	$6,316.91
10-06-89					
10-13-89	882	208.59	526.21	Dore	$76,608.49
10-20-89	888	68.07	180.05	Dore	$25,206.42
10-27-89	899	50.43	134.58	Dore	$18,904.10
10-27-89	905	37.25	99.52	Dore	$13,992.72
11-06-89	906	74.63	198.40	Dore	$28,848.89
11-10-89	925	79.90	219.72	Dore	$32,598.79
11-17-89	934	43.88	122.02	Dore	$17,926.21
11-24-89					
12-01-89	941	67.14	194.49	Dore	$27,650.47
12-08-89					
12-15-89	958	61.05	170.54	Dore	$23,833.31
12-22-89	969	25.45	71.28	Dore	$9,725.22
12-29-89					
01-05-90	985	34.78	106.01	Dore	$13,987.89
		3,508.5	10,533.3		$1,340,463.62

Totals through January 15, 1990