

MEMO

To: Kurt Forgaard

From: Gregg Jilson

Date: April 18, 1986

Subject: Scheduling of ore from the Faro Zone Three pit

I have examined several possible scenarios for scheduling ore from zone three of the Faro pit using a rather crude spreadsheet model developed after you requested me to provide a ore flow chart. The model is not as good an approximation as the the one Bart Fairburn is using but it does give some idea of the effect of changing some key variables while holding everything else constant. In particular, I have calculated out the effect of the two most significant issues discussed at the meetings last week:

- * varying the mill startup date
- * deepening the JB phase

Additionally I have looked at the effect of milling at 10,000 tonnes per day rather than 11,160 for each of these cases.

This analysis uses the original designs of both the A and JB phases; this is slightly different from the current design. Most significantly the Ramp zone is not included for lack of data. The tonnages and grades used are the original undiluted and unadjusted figures reported by the FI mine model of Dec. 1985.

The figures I have used for the deeper JB phase reserves and incremental waste volumes are those outlined by M. St. Jorre in his memo to you of April 3, 1986.

Thruout the analysis certain key variables have been kept constant at figures that I think are comparable to Bart Fairburn's or I made up for want of anything better. These are:

- * mining rate in waste is 37500 BCY/day and in ore is 114690 tonnes/day (the approximate equivalent of 37500 BCY/day at an SG of 4.00)

- * the mill is assumed to operate at half capacity until about Aug. 10.

- * mining capacity is split between the A and JB phases evenly until the lower benches of the JB when 1/3 of the capacity is directed there to reflect limited work space

- * 2/3 of the mining capacity is directed toward the B phase as soon as possible to avoid prolonging an ore gap from phase A; this is usually late Jan. to early March.

The results are presented graphically on the attached sheet. The bars show the approximate intervals during which there is a shortfall of feed to the mill either directly from the pit or from the accumulated crusher feed stockpile and the magnitude of the overall shortfall. Note that it is not always necessary to feed oxide to the mill during the entire interval and I have not calculated the timing of the needed supplements. Because this is such a crude model the limits of these intervals should not be considered exact,

particularly the ends because nothing is assumed of the distribution of ore on a bench, simply that it is available when needed.

Deepening the JB phase pushes back the late 1986 ore gap by about 2 months but with the available data a small ore gap can open in June or July depending on the mill start date. This early gap is largely due to not including the Ramp zone and it is likely that zone would cover off these intervals leaving only the late 1986 gap.

A combination of deepening the JB phase and milling at 10,000 TPD rather than 11,160 TPD can probably eliminate any ore gaps if the mill startup is 1 June or later. Taking the mill to 11,160 in 1987 should be no problem since large quantities of ore are available once the 3550 bench of phase A is opened up.

A handwritten signature in black ink, appearing to be 'Lynn' or similar, written in a cursive style.

MILL AT 50% → ← MILL AT 100% →
 DEPT. OF MINES & TECHNICAL SERVICES
 REPUBLICAN & ESSER
 WASHINGTON, D.C.

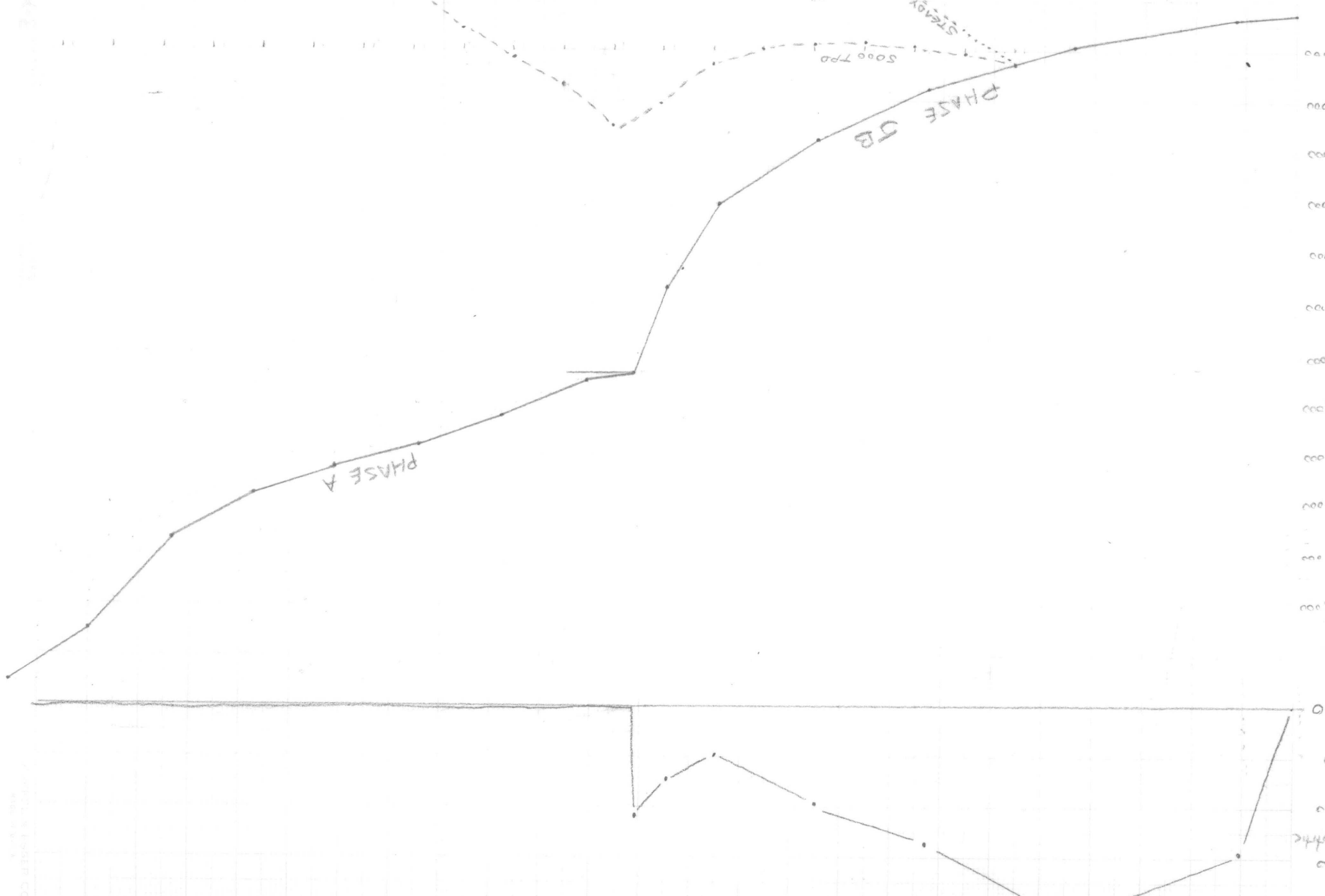
	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR
STD JB 15 MAY START 11160 TPD								575,000 TONNE SHORTFALL			
STD JB 1 JUNE START 11160 TPD								490,000 TONNE SHORTFALL			
STD JB 15 JUNE START 11160 TPD								405,000 TONNE SHORTFALL			
			END OF JB →						START B		
						END OF JB →					START B
DEEPER JB 15 MAY 11160		129,000 TONNE						295,000 TONNE SHORTFALL			
DEEPER JB 1 JUNE 11160			36,000 TONNE SHORTFALL					295,000 TONNE SHORTFALL			
DEEPER JB 15 JUNE 11160								247,000 TONNE SHORTFALL			
									START B		
			END JB →						START B		
STD JB 15 MAY 10,000 TPD								363,000 TONNES			
STD JB 1 JUNE 10,000								288,000 TONNES			
STD JB 15 JUNE 10,000								211,000 TONNES			
									START B		
						END JB →					START B
DEEPER JB 15 MAY 10,000 TPD			97,000 TONNES					16,000 TONNES			
DEEPER JB 1 JUNE 10,000				14,000 TONNES				25,000 TONNES	8,000 TONNES		
DEEPER JB 15 JUNE 10,000										3,000 TONNES	
											START B

MILL AT 50% → ← MILL AT 100% →

APRIL | MAY | JUNE | JULY | AUGUST | SEPTEMBER | OCTOBER | NOVEMBER | DEC

DAYS FROM START DATE (4/14/86)

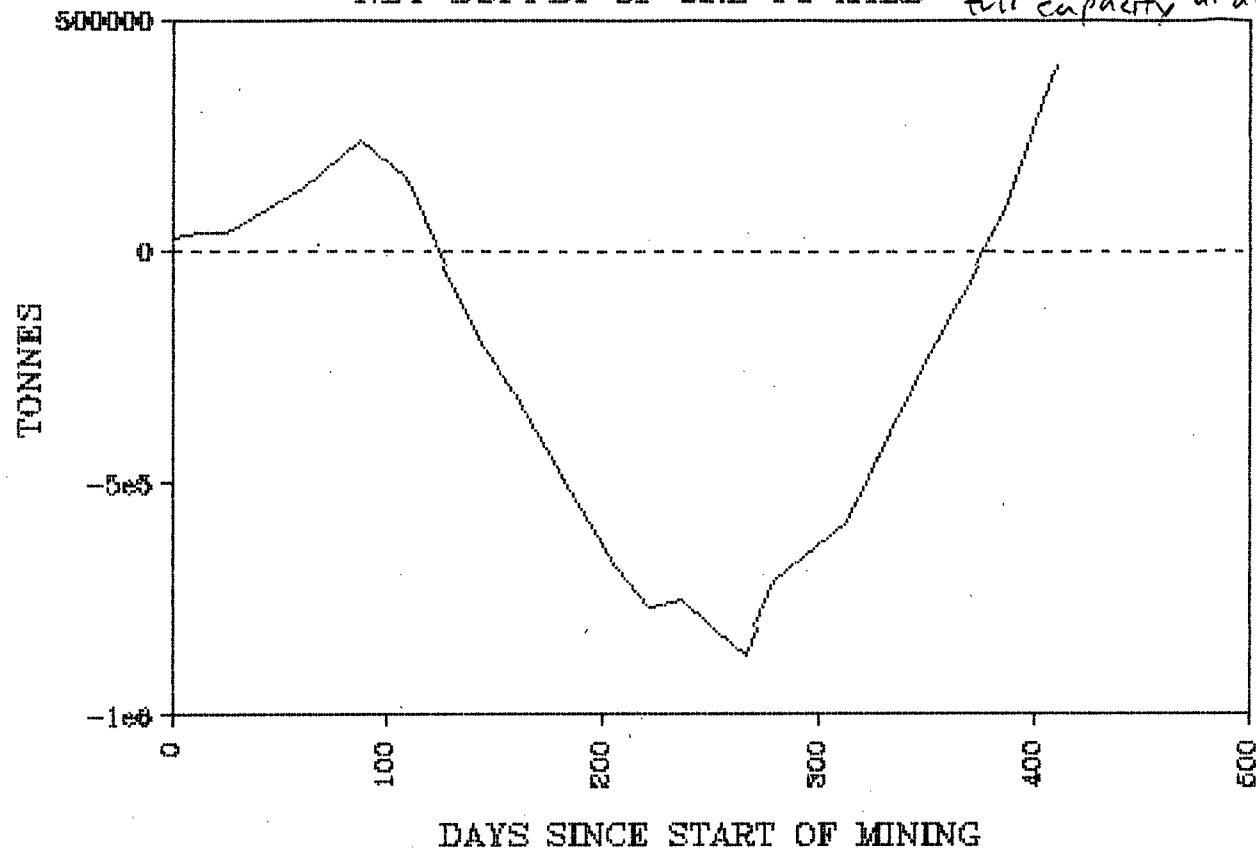
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250



Vertical text on the left side of the graph, possibly a date or reference number.

CURRAGH RESOURCES - FARO DEPOSIT

NET SUPPLY OF ORE TO MILL *full capacity at all times*



*effect of deferring end of period
of $\frac{1}{2}$ capacity on the
ore gap*

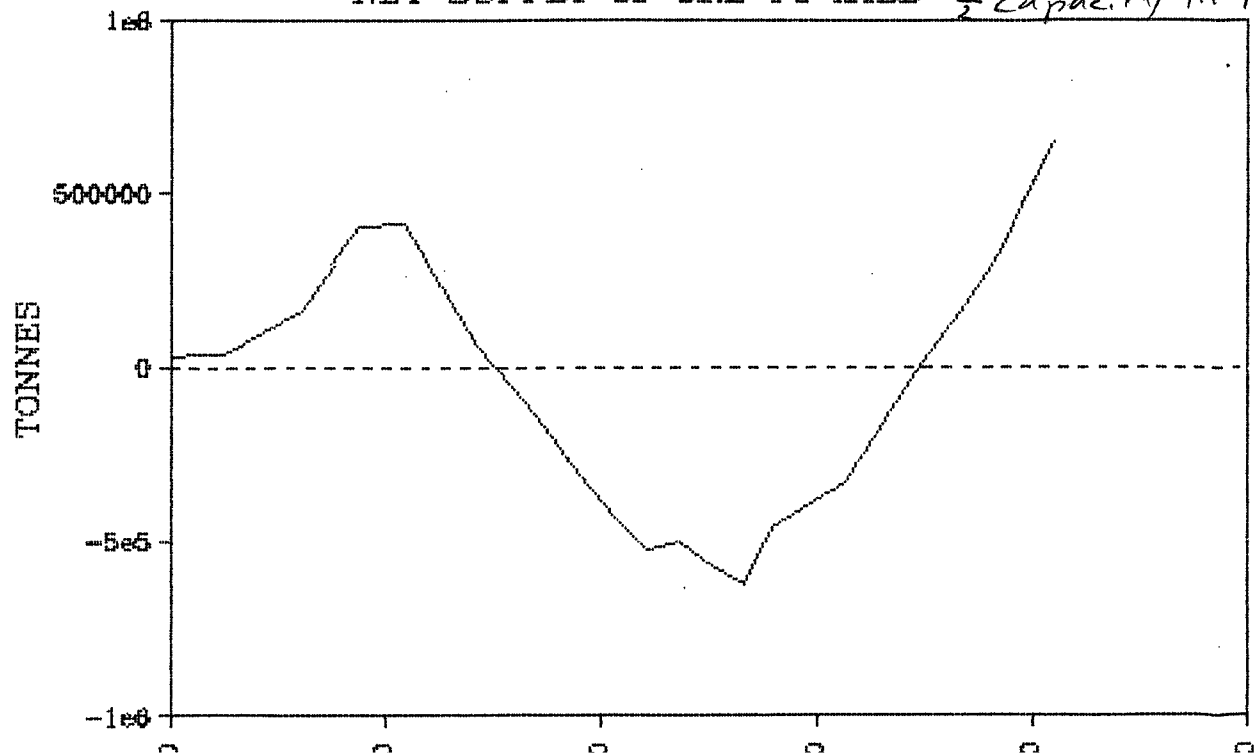
Dep. JB

1 June Mill start

11,500 TPD

CURRAGH RESOURCES - FARO DEPOSIT

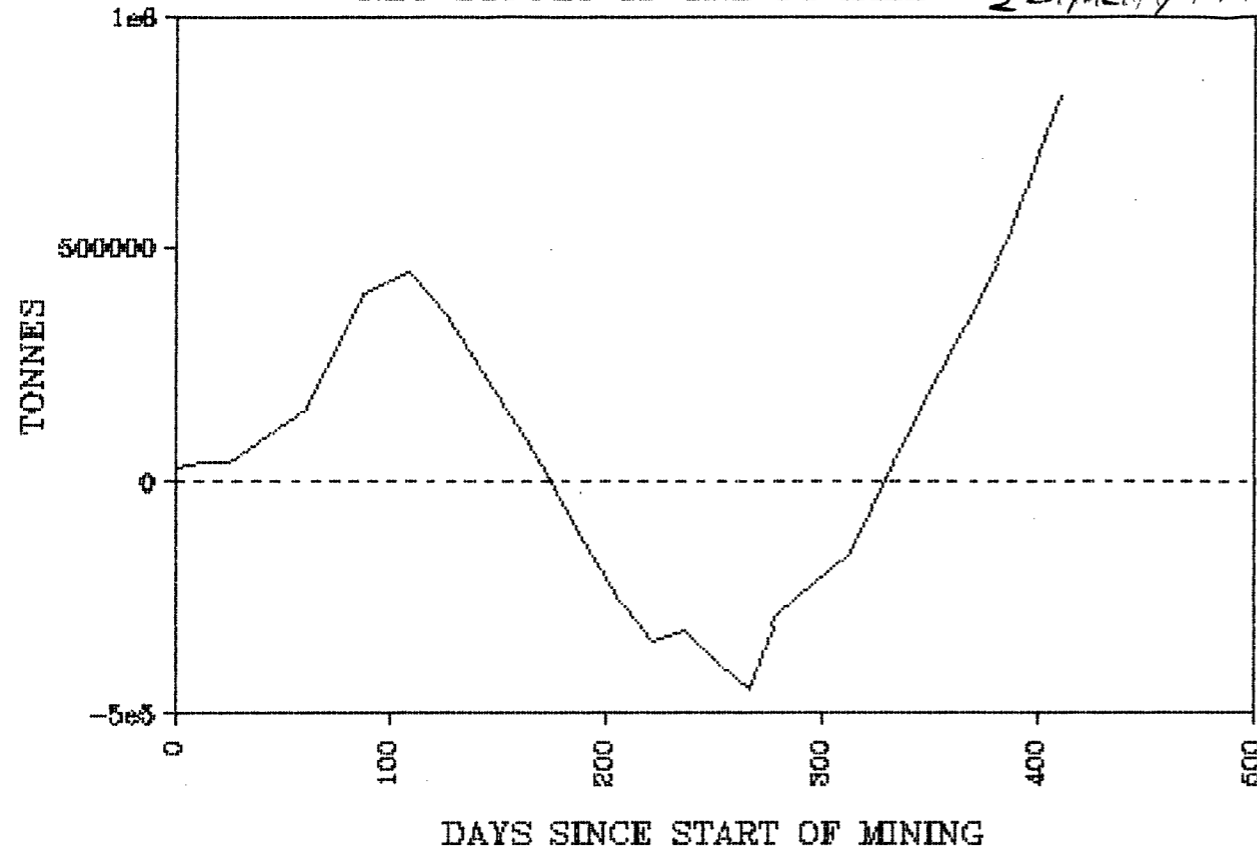
NET SUPPLY OF ORE TO MILL *$\frac{1}{2}$ capacity til 15 July*



11 2 5 4 6
DAYS SINCE START OF MINING

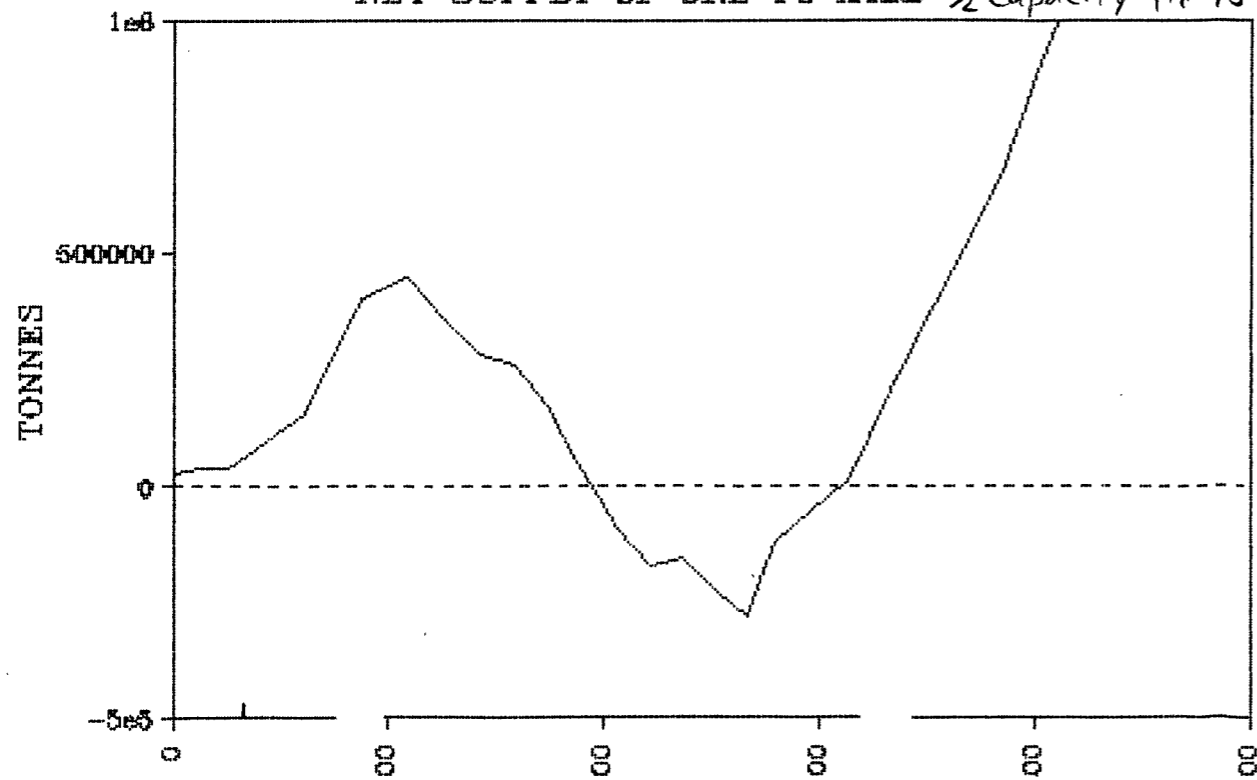
CURRAGH RESOURCES - FARO DEPOSIT

NET SUPPLY OF ORE TO MILL $\frac{1}{2}$ capacity till 15 Aug



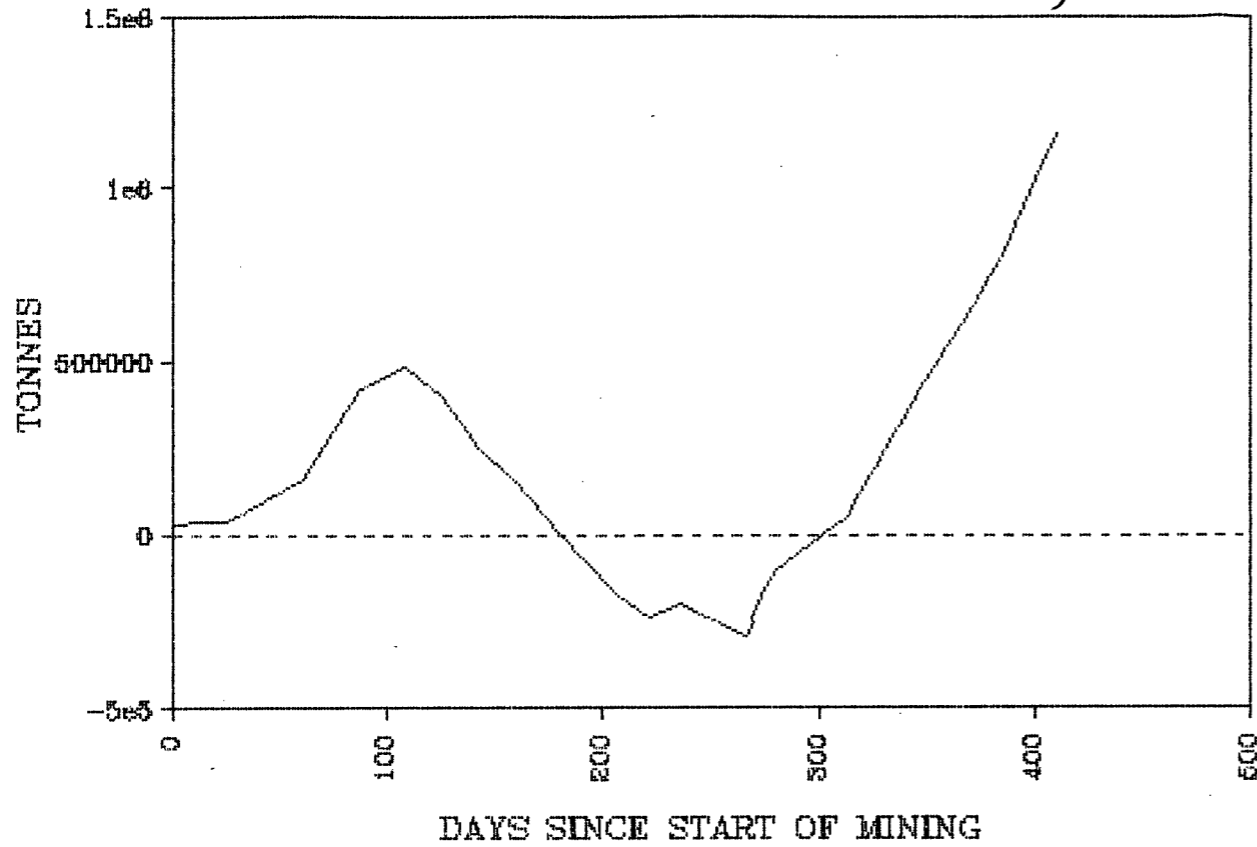
CURRAGH RESOURCES - FARO DEPOSIT

NET SUPPLY OF ORE TO MILL $\frac{1}{2}$ capacity till 15 Sept



CURRAGH RESOURCES - FARO DEPOSIT

NET SUPPLY OF ORE TO MILL 10,000 TPD

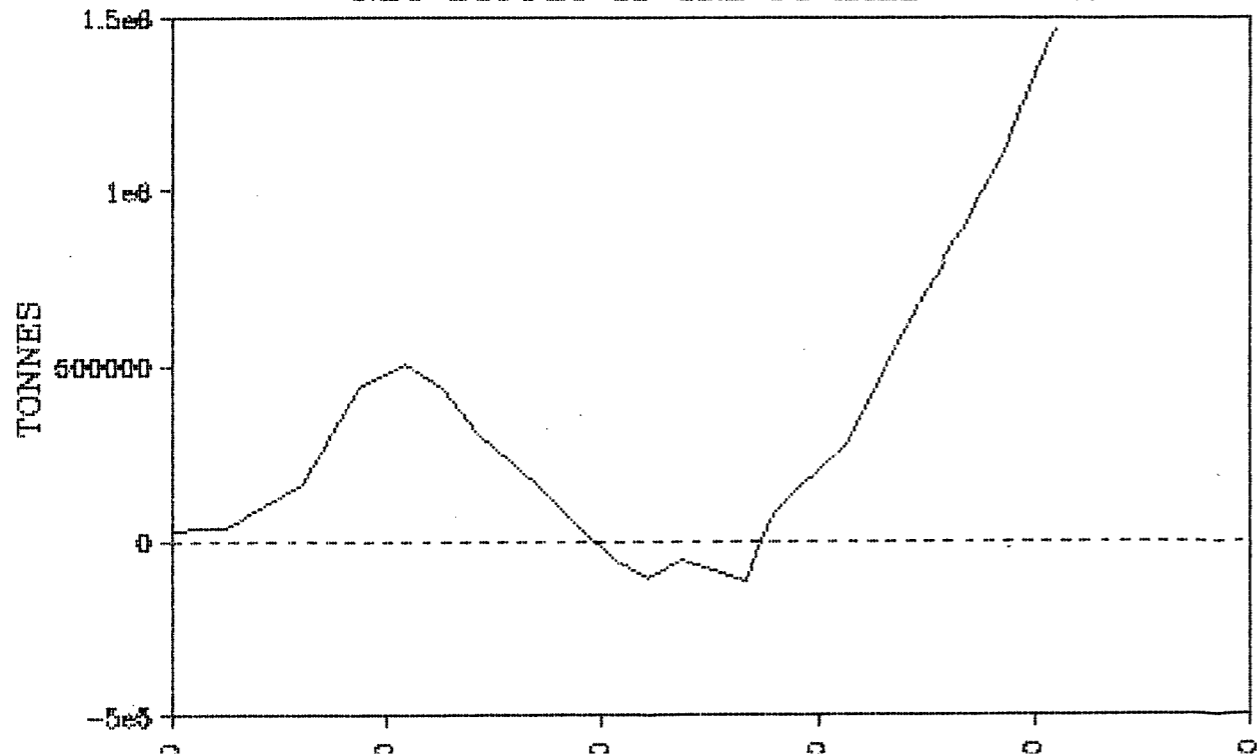


effect of changing peak capacity
mill rate on the ore gap

June 1 start up
1/2 capacity till Aug 10
Deep JB

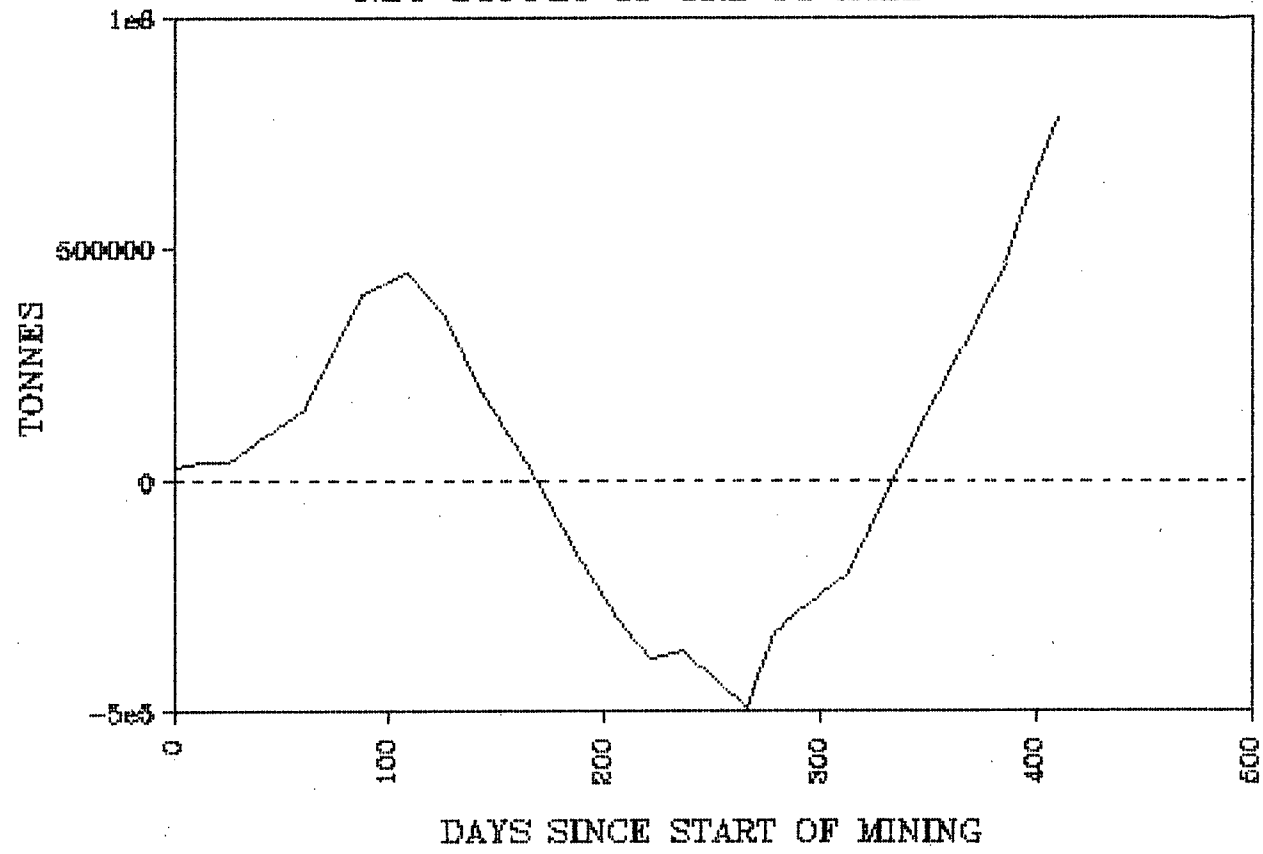
CURRAGH RESOURCES - FARO DEPOSIT

NET SUPPLY OF ORE TO MILL 8000 TPD



DAYS SINCE START OF MINING

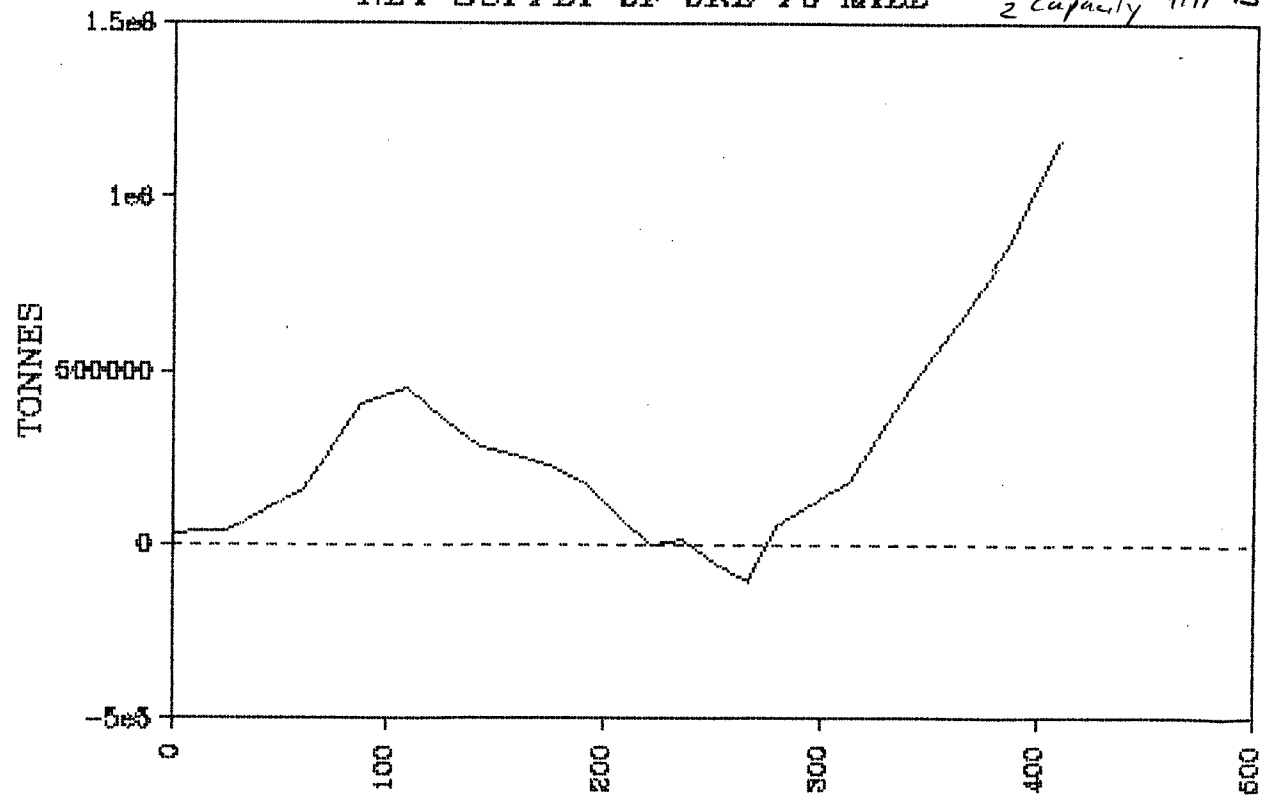
CURRAGH RESOURCES - FARO DEPOSIT
NET SUPPLY OF ORE TO MILL 11160 TPD



DAYS SINCE START OF MINING

CURRAGH RESOURCES - FARO DEPOSIT

NET SUPPLY OF ORE TO MILL $\frac{1}{2}$ capacity till 15 Oct



DAYS SINCE START OF MINING