

002373

To J.C. Devitt

Date December 21, 1977

From J.W. Mustard

Subject DECEMBER FEED GRADES

Short range mining plans have necessitated combining phase IV 3770 and 3750 benches. The following table illustrates the expected gain in tons and decrease in grades. All information is taken from the 1977 tonnage and grade model.

<u>Phase</u>	<u>Bench</u>	<u>Tons</u>	<u>% Pb</u>	<u>% Zn</u>
IV	3770 <sup>1</sup>	339,000	3.3	6.3
IV	3750 <sup>1</sup>	256,000	2.6	5.9
IV	3750 <sup>2</sup>	595,000	3.0	6.1
IV	3750 <sup>3</sup>	630,000	2.7	5.6
	Variance	+6%	-10%	-8%

Notes: 1 - 20' bench  
2 - 40' bench mined in 2-20' lifts  
3 - 40' bench

This combining of two benches has significantly affected the December feed grades. The failure to develop ore on phase V is the other factor, which has resulted in a drop in feed grades for this month. The following table shows the December feed grades that were predicted in the third quarter review.

<u>Phase</u>	<u>Bench</u>	<u>Tons</u>	<u>% Pb</u>	<u>% Zn</u>
V	3910 <sup>1</sup>	10,000	5.9	8.2
IV	3790 <sub>2</sub>	141,000	2.1	5.4
IV	3770 <sup>2</sup>	90,000	3.5	8.4
V	3890 <sup>1</sup>	69,000	2.9	5.1
		310,000	2.8	6.3

Notes: 1 - No phase V ore developed during December  
2 - Grade on 3770 diluted by lower grade on 3750

A revised schedule is shown to illustrate grade and material source for the month of December.

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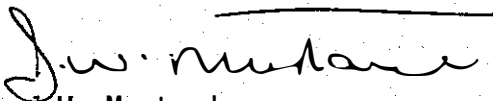
DEC 1- DEC 19/77

<u>Source</u>	<u>Tons</u>	<u>% Pb</u>	<u>% Zn</u>
3790	34,000	2.0	3.0
3750	135,000	2.5	4.0
3750 ramp spill	18,000	2.4	4.0
Stockpile	<u>22,000</u>	<u>2.3</u>	<u>5.2</u>
	209,000	2.4	4.0

DEC 20- DEC 31/77

3790	35,000	2.4	4.3	blasthole data
3750	<u>75,000</u>	<u>2.1</u>	<u>3.5</u>	mine model
	110,000	2.2	3.7	
TOTAL:	<u>319,000</u>	<u>2.3</u>	<u>3.9</u>	

To ensure that feed grades are not diluted, every effort should be made to develop ore by 20 foot benches.



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JWM/rmm

cc: D. Gregoire