

To

J. C. Devitt

Date

February 23, 1978

From

J. W. Mustard

Subject

1978 FEED GRADES

Attached are feed grade projections for 1978 for three possible shutdown periods:

- A. 5 day per week milling operation
- B. 1 month shutdown in July
- C. 2 month shutdown in July and August

Feed grades are given by quarter except for March.

The following parameters were used for grade calculations:

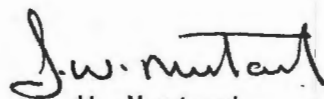
- 1. 1977 Tonnage and Grade Model
- 2. September 1, 1977 Mining Schedule
- 3. January 31, 1978 Pit Status
- 4. 3.5 SDT/BCY
- 5. 4.5% combined lead-zinc cutoff
- 6. Reduction of mill throughput by 20,000 tons during June
- 7. Milling Rate:

Option A: 54,200 SDT/week

B & C: 10,230 SDT/day

Grades for option B and C (1 and 2 month shutdown periods) were calculated using 10,000 SDT/day. During 1978, increased milling to 10,230 SDT/day would not have significantly affected grades. Tonnages would have increased no more than 1.6% (43,000 tons) over the course of the year.

Also attached is a source breakout for option A (5 days/week milling).

  
J. W. Mustard  
Mine Geologist

JWM/mm

cc. B. Ferguson

Attach.

**CYPRUS ANVIL MINING CORPORATION**  
**PRODUCTION AND GENERAL ADMINISTRATIVE**

Schedule 1

	Jan.	Feb.	Mar.	1st Qtr.	Apr.	May	Jun	2nd Qtr.	1st Half	July	Aug.	Sept.	3rd Qtr.	YTD	Oct.	Nov.	Dec.	4th Qtr.	Qtr. REV.	Memo Plan
<b>Feed Grade %</b>																				
Lead			33		28	28	28	28		35	35	35	35		35	35	35	35		
Zinc			52		53	53	53	53		57	57	57	57		62	62	62	62		
Total			85		81	81	81	81		92	92	92	92		97	97	97	97		
<b>Cu. Yds. Moved (000's)</b>																				
Waste & Low Grade																				
Ore			249		217	249	218	684		228	249	228	705		238	238	229	705		
Total																				
<b>Tons Milled (000's)</b>																				
<b>Mill Feed (000 lbs)</b>																				
Lead																				
Zinc																				
<b>Metal Recovered (000 lbs)</b>																				
Lead Select																				
Bulk																				
Total Lead																				
Zinc Select																				
Bulk																				
Total Zinc																				
<b>Recoveries %</b>																				
Lead Select																				
Bulk																				
Total Lead																				
Zinc Select																				
Bulk																				
Total Zinc																				
<b>Concentrate Grades %</b>																				
Select Lead																				
Select Zinc																				
Bulk - Lead																				
Bulk - Zinc																				
Silver in Sel. Pb																				
Silver in Bulk Pb																				
Fe in Sel. Zinc																				
Fe in Bulk																				

2094

B

10,230 SOT / Day

Schedule 1

63,000

CYPRUS ANVIL MINING CORPORATION  
PRODUCTION AND GENERAL ADMINISTRATIVE

July shutdown 1978

	Jan.	Feb.	Mar.	1st Qtr.	Apr.	May	June	2nd Qtr.	1st Half	July	Aug.	Sept.	3rd Qtr.	YTD	Oct.	Nov.	Dec.	4th Qtr.	Qtr. REV.	Memo Plan	
<b>Feed Grade %</b>																					
Lead			3.3		3.0	3.0	3.0	3.0		-	3.7	3.7	3.7		3.2	3.2	3.2	3.2			
Zinc			5.2		5.3	5.3	5.3	5.3		-	5.7	5.7	5.7		5.7	5.7	5.7	5.7			
Total			8.5		8.3	8.3	8.3	8.3		-	9.4	9.4	9.4		8.9	8.9	8.9	8.9			
<b>Cu. Yds. Moved (000's)</b>																					
Waste & Low Grade																					
Ore			317		307	317	287	911		-	317	307	624		317	307	317	941			
Total																					
<b>Tons Milled (000's)</b>																					
<b>Mill Feed (000 lbs)</b>																					
Lead																					
Zinc																					
<b>Metal Recovered (000 lbs)</b>																					
Lead Select																					
Bulk																					
Total Lead																					
Zinc Select																					
Bulk																					
Total Zinc																					
<b>Recoveries %</b>																					
Lead Select																					
Bulk																					
Total Lead																					
Zinc Select																					
Bulk																					
Total Zinc																					
<b>Concentrate Grades %</b>																					
Select Lead																					
Select Zinc																					
Bulk - Lead																					
Bulk - Zinc																					
Silver in Sel. Pb																					
Silver in Bulk Pb																					
Fe in Sel. Zinc																					
Fe in Bulk																					

2476



CYPRUS ANVIL MINING CORPORATION

ORE RESERVES ZONE

K = 6481.5 @ 3.50 T/BCY

54,200 TONS/week  
(No milling on weekends)

Bench

Page \_\_\_\_\_ of \_\_\_\_\_

O R E						O R E							
Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks	Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks
			Pb	Zn	Comb					Pb	Zn	Comb	
<i>March (249,000)</i>													
IV	3830	100,000	37	57									
IV	3730	149,000	30	49									
		<u>249,000</u>	<u>33</u>	<u>52</u>									
<i>2nd Qtr (684,000)</i>													
IV	3730	101,000	42	64									
IV	3810	172,000	26	49									
IV	3790	148,000	22	46									
IV	3710	270,000	27	54									
IV	3770	53,000	33	57									
		<u>684,000</u>	<u>28</u>	<u>53</u>									
<i>3rd Qtr (705,000)</i>													
IV	3710	234,000	34	48									
IV	3770	149,000	27	62									
IV	3750	322,000	39	61									
		<u>705,000</u>	<u>35</u>	<u>57</u>									
<i>4th Qtr (705,000)</i>													
IV	3710	97,000	22	49									
IV	3890	170,000	28	48									
IV	3730	544,000	38	66									
		<u>705,000</u>	<u>35</u>	<u>62</u>									
Total						Total							

CYPRUS ANVIL MINING CORPORATION

ORE RESERVES ZONE

K = 6481.5 @ 3.50 T/BCY

Bench \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_

O R E						O R E							
Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks	Ore Block	Area Units	Tons (A.U. x K)	Grade			Remarks
			Pb	Zn	Comb					Pb	Zn	Comb	
		3710											
		10,000		13	51								
		240,000		29	59								
		270,000		27	59								
								317,000					
Left		47,000		18	45								
		110,000		24	51								
				22	49								
total		595		29	51								
								3770					
								29,008	2.5	57	Comp.		
								28,992	3.9	58			
		270,000	2.7	54		.16		53,000	3.3	57			
		191,000	2.2	49		?		199,000	2.7	62			
		361,000						202,000	2.9	6.1			
		429,000	2.5	53									
		231,000											
		168,000	3.9	48									
			3.4										
		595	2.9	51				3690					
								26,703	2.7	6.0			
								13,000	2.8	9.1			
								70,000	2.8	4.8			
Total							Total						

1. 972.00  
 28.00  
 62.00  
 2. 778.00  
 30.00  
 62.00  
 3. 1,750.00  
 28.00  
 62.00  
 4. 4,861.00  
 28.00  
 62.00  
 5. 3,305.00  
 18.00  
 46.00  
 6. 1,778.00  
 30.00  
 62.00  
 7. 3,241.00  
 26.00  
 64.00  
 8. 907.00  
 26.00  
 63.00  
 9. 2,463.00  
 23.00  
 51.00  
 10. 519.00  
 25.00  
 55.00  
 11. 129.00  
 23.00  
 51.00  
 12. 389.00  
 25.00  
 55.00  
 13. 972.00  
 19.00  
 43.00  
 14. 1,555.00  
 24.00  
 54.00  
 15. 65.00  
 22.00  
 64.00  
 16. 324.00  
 21.00  
 46.00  
 .....  
 24,008.00  
 25.10  
 57.15

1. 2,139.00  
 2.00  
 3.90  
 .....  
 2,139.00  
 2.00  
 3.90  
 1. 2,139.00  
 20.00  
 39.00  
 2. 1,945.00  
 23.00  
 52.00  
 3. 4,861.00  
 23.00  
 52.00  
 4. 778.00  
 23.00  
 52.00  
 5. 2,139.00  
 32.00  
 69.00  
 6. 1,166.00  
 32.00  
 69.00  
 7. 3,241.00  
 32.00  
 69.00  
 8. 1,815.00  
 32.00  
 69.00  
 9. 907.00  
 32.00  
 69.00  
 10. 3,241.00  
 32.00  
 69.00

11. 259.00  
 24.00  
 52.00  
 12. 907.00  
 32.00  
 69.00  
 13. 648.00  
 36.00  
 78.00  
 14. 454.00  
 39.00  
 84.00  
 15. 1,620.00  
 16.00  
 34.00  
 16. 324.00  
 24.00  
 52.00  
 17. 259.00  
 32.00  
 69.00  
 .....  
 26,703.00  
 27.55  
 59.74