



To: J.O. Kachmar

Subject: Giant  $\text{As}_2\text{O}_3$ 

Date: April 10, 1981

From: D.N. Zeraldo

Copies to: DJE, TJD, PJR, JGG, SOF.

D.J.E. APR 10 1981

## INTER-OFFICE MEMORANDUM

J.G. Green's memorandum of March 30, 1981, which provided after tax net present values for several possible  $\text{As}_2\text{O}_3$  production scenarios at Giant, clearly highlighted the economic incentive for installing a facility to produce a refined arsenic trioxide product. It now appears that the scenarios involving the treatment of Con material can be dropped from consideration as a result of Cominco's imminent decision to construct its own hot water treatment plant.

We analyse Giant's present set of production alternatives to be as follows:

- (1) Continue to produce and sell beginning in 1984 (for 5 years) 3500 tons per year of baghouse dust grading 90%  $\text{As}_2\text{O}_3$  to Koppers and annually netback at the mine:

$\text{As}_2\text{O}_3$ : 3500T X 2000 lb X 90% X 10.8¢ US/lb = \$US 680,400

Gold: 3500T X .08 oz/T X 70% X \$500 = \$US 98,000

\$US 778,400

- Capital cost = \$0 (load facility now in place is a sunk cost).

- Operating cost assumed to be zero.

- (2) Construct a fuming plant to treat current baghouse production beginning in 1984 to produce and sell (for 5 years) 3000 tons per year of purified  $\text{As}_2\text{O}_3$  and annually netback at the mine:

$\text{As}_2\text{O}_3$ : 3000 tons X 2000 lbs X 30¢ US/lb = \$US 1,800,000

Gold: 3500 tons X .0800 X 70% X \$500 = \$US 98,000

\$US 1,898,000


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- Capital cost of process plant	\$CDN	900,000
- Operating cost (7¢ CDN/lb)	\$CDN	420,000/YR

- (3) Recover underground material which will be added to current baghouse production of 3500t/YR for feed to a fuming plant which will be constructed in order to produce 6,000t/YR of refined  $\text{As}_2\text{O}_3$  for sale beginning in 1984 for 5 years and annually netback at the mine:

$\text{As}_2\text{O}_3$ : 6,000 tons X 2000 lbs X 30¢ US/lb =	\$US	3,600,000
Gold: 3700 tons U.S. X .502/t X 70% X \$500 =	\$US	648,000
3500 tons B.H. X .08 oz/t X 70% X \$500 =	\$US	98,000
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	\$US	4,346,000
- Capital cost of process plant	\$CDN	1,100,000
of U.G. Recovery	\$CDN	400,000
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	\$CDN	1,500,000
- Operating Cost: - fuming plant (5¢ CDN/lb)	\$CDN	600,000
- U.G. Recovery (\$CDN 55/t)	\$CDN	204,000
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	\$CDN	804,000

We would appreciate your department's assistance by providing additional computations of the after tax N.P.V. for the above 3 scenarios which we feel will accurately highlight the attractiveness of going to a refined product. (Please note that all capital and operating costs are derived from PJR's Nov. 28/80 memo.)



D.N. Zeraldo

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