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FALCONBRIDGE

R6-1410

Memorandum

Date: September 4, 1985

To: D. J. Emery

Copies to: L. G. Bonar, L. C. Kilburn, K. Blower, K. G. Thomas, T. Riordan, B. C. Cross, S. O. Fekete, P. J. Raleigh, File

From: T. J. Desanti

Subject: GIANT YELLOWKNIFE - As_2O_3

A meeting was held in Toronto on Thursday, August 29 with Applied Research and Blythe & Company to discuss the formation of a joint U.S. company to produce copper arsenate for the North American market. Present at the meeting were:

William Blythe & Co. Ltd.	Applied Research	Giant
T. Robson - Man. Dir.	W. Drinkard - Pres.	DJE
FL		
PJR		
SOF		
TJD		

1. Blythe is a U.K. company wholly owned by Hickson's Timber Products Ltd., a major producer of arsenical wood preservatives (CCA) in the U.K. and abroad. Blythe produce the arsenic trioxide and pentoxide used by Hickson's to produce CCA.

2. Blythe are seriously interested in using Applied's process to produce copper arsenate (CA) at a lower cost from lower grade As_2O_3 and copper bearing raw materials. Blythe met initially with Applied and Giant in late June and were sufficiently impressed with the potential cost savings using Applied's process that they subsequently purchased 80% of Applied. Drinkard retains the remaining 20% interest.

3. Blythe/Hickson want to establish a U.S. company using Applied's process to enter the North American CCA market. They recognize Giant has the largest known crude As_2O_3 inventory and want to determine whether Giant would be interested in a joint company with the following interest:

Giant Yellowknife	40% ✓
Hickson's	40% ✓
W. Drinkard	20% ✓

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4. Drinkard estimates the capital cost of building a plant to produce about 15.5 million ppy of CA at US $5 million. This is equivalent to 30 million ppy of CCA or 30% of the U.S. market. The plant would consume 5,000 TPY of Giant crude As_2O_3 assaying 85% As_2O_3. Drinkard projected a selling price of US 83¢/lb for CA resulting in a sales revenue of $13 million/year and a net profit before taxes of US $6.8 million. Applied would be responsible for operating the plant and marketing the output.

5. In return for contributing their process to the joint company and marketing the output, Applied want 20% of the profits but would not contribute any capital. The $5 million capital would be split 50/50 between Giant and Hickson's. Applied currently produce up to 10 million ppy of CCA and are experienced marketers. Drinkard previously founded Minerals & Metal Research, another U.S. CCA producer, and operated the company successfully for a number of years. Drinkard sold his interest in the company to establish Applied Research.

6. In order to confirm that the Applied process is technically sound and economic, Blythe want to do extended pilot plant tests in their U.K. plant over a six month period and asked for a container load (about 20 tons) of Giant crude As_2O_3. Ideally, they would like fully representative material; i.e. if underground As_2O_3 containing high gold is used as feed for the new plant, this material should be supplied. However, it was agreed there should be no significant difference between current production and underground material, so current production will be shipped. Any available samples of underground material recovered by Giant in the past should be included in the container separately for lab tests. Blythe will pay the shipping costs from Giant to their plant.

7. Blythe estimate the cost of the test to be Stlg 200,000 - 250,000 (Cdn $375,000 - $475,000). Blythe want to split the cost with Giant 50/50. The test will enable Blythe to estimate plant operating costs and the capital cost of building the required U.S. facility.

8. An extended technical discussion was held early in the meeting to discuss the limited amount of lab test work done to date by both Applied and Falconbridge on the Applied process. The results of this work have provided Giant with the confidence necessary to proceed with the Blythe test. DJE requested that Blythe submit a proposal covering the objectives of the test work, the costs concerned and an outline of the proposed joint company. Blythe agreed to supply this information by mid-September. DJE then indicated that the suggested 20% Applied equity position was too high based upon Giant's experience in other joint companies where the partner concerned did not supply equity funds. Blythe had earlier indicated they agreed with the 20% figure but neither Blythe or Applied expressed serious opposition or refused to proceed with the test proposal following DJE's comments.

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Summary

Giant will await the proposal from Blythe covering the test work and submit a counter proposal in which Giant will reduce W. Drinkard's 20% carried interest in the joint company to a number acceptable to Giant before moving forward on the test work. Blythe want to move promptly and consequently, Giant will have to reach a decision by the end of September on the structure of the joint company. The 20 ton sample of Giant crude will be shipped promptly since the shipping costs will be for Blythe's account.

One shipping container will hold 80 drums or 16 tons. Is this enough?

T. J. Desanti

TJD:dmf