H.M.H. /D.A.K.

MINE TAILING PROJECT
HUATONG VILLAGE
LIAONING, CHINA

JULY 26, 2006

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MINE TAILING PROJECT SUMMARY

Dalian, China
February 7, 2006

History of Project	1935 – Hua Tong Copper mine (flotation process) begins operations by Japanese 1950 – Chinese management began 1995 – Mine ceased production and closed 1997 – D.A.K. purchase
Assets Included	5.2 million tons of mine tailings 220,000 square meters of land for 25 years Infrastructure including roads, electricity, water fencing, storm sewer, transportation, and one production line
Monthly Revenues	Assuming one production line operated 24 hours per day by three shirts (four shifts hired): • Projected average revenues of **$1,600,000/month**
Monthly Costs	Assuming one production line operated 24 hours per day: • Projected total average costs of **$390,000**/month
Costs to Re-Start Line	To begin production for one line, total equipment costs projected at **$320,000.**
Working Capital Requirement	To finance 4 ½ months of full production (**$390,000/month**) until payment for concentrate received. Total cost **$1,755,000.**

Historical Background

The Tailings that are the focus of this report came from the Hua Tong Copper Mine. The Mine and its associated Mill began to produce copper concentrate by floatation process in 1935. Some amount of gold and was also taken out. The annual ore production exceeded 100,000 tons.
Initially, the mining residues, i.e. tailings were discarded and/or shipped out of the country along with the copper. The mining operation ceased for a short period after World War Ⅱ, and the mine was re-opened in 1950. By late 1953, the tailings slurry, a sort of liquid mud made up from the mining residues and water, was being pumped from the Mill into an adjacent valley. To retain those tailings, a dam was placed across the valley at its deepest point and the slurry began to fill the valley to create the Tailings Reservoir.
Figure 1 is a copy of the original survey document showing the contours of the valley into which the slurry was pumped. Two mining engineers, employed at the mine for 30 years, produced these original drawings showing the depth of the Tailings Reservoir and the extent of its boundaries.
The contour map was updated over time and shows successive additions to the height of the down-stream dam (North end) and later on in 1971, the addition of a smaller dam at the South end of the valley. Please note that the Tailings Reservoir expanded toward the West to cover the bottom of an intersecting valley. The new buildings of the DAK processing plant have been built along the edge of this western extension of the Tailings Reservoir as shown in Figure 2.

Pre DAK History

1935	**Mine exploitation starts by Japanese precursor of Sumitomo**
	Extraction of copper; tailings shipped to Japan
1950	**Mine exploitation resumes under Chinese management**
	Extraction of copper, iron and molybdenum
1952	**Tailing Pond and dams constructed**
	Tailing in Tailing Pond
1985	**Hua Tong Mine starts separating gold**
	Tailings in Tailing Pond
1995	**Hua Tong Mine ceased production and closed.**

DAK Chronological Events

1997 DAK start-up date	**Planning stage: temporary office,**
	Testing and lab facilities
1998 September	**Facilities Design completed**

2000 February	Main special equipment installed
2000 July	Test completed-Laboratory production 2000
October	First Factory Production
2000 October	Positive assay results from first production by Johnson Matthey (results up to their standards)
2000 December	Johnson Matthey contracts with DAK
2001	Refine process & chemicals quality- New transfer documents
2002	Production & refining
2003	Secondary production exploration
2004	R & D to adjust to new metal prices Extraction of magnetic iron Recuperation of free gold
2005	Extraction of magnetic iron Construction of industrial zone R & D on metal final separation
2006	Production of Rhodium, Iridium & Palladium Extraction of magnetic iron Run the industrial zone (2 new factories on site)