

Test marketing Japanese trading co. (long-term contract)  
 (will finance 60% of costs at mine)  
 + will buy 100% of product (FOB)

11/9/15 30/6 11/9/11  
 than A1

**Redevelopment of Cassiar**

881674

IM Cont. (Van)  
 Oct. 22/98

Barney Kovacs (Pres.)  
 Cassiar Mining Inc.

1999 - 50,000 TPA enlarges  
 \$10 - 20M (up to 15 yrs.)

The Cassiar Mine located in north central British Columbia has been a prominent producer of chrysotile asbestos fibre since 1953. The nominal output of the plant was 100,000 tonnes of fibre per year, currently valued at over \$80 million. Following the depletion of the open pit reserves in 1990, an unsuccessful attempt at underground development led to the premature closure of the mine in 1992.

15 employ now  
 (up to 60 in '99)

Cassiar Mining Inc., a fully owned subsidiary of Minroc Mines Inc. of Toronto, purchased the Cassiar property in 1994 with plans to reprocess 17 million tonnes of tailings material that contains 4% chrysotile and to clean up the mine site. A small scale processing plant has since been built on the site at a cost of \$8.0 million. This plant is being commissioned to produce 1,000 tonnes of fibre per month by mid 1998. The plant uses a proven wet milling technology that was developed in coal reclaim operations and quantified at a similar chrysotile mill in Newfoundland. Following the re-introduction of Cassiar fibre to its traditional markets in 1998, the expansion of the plant to a capacity of 50,000 tonnes of fibre per year is planned. The capital cost of this phase will be \$22.9 million based on a due diligence report prepared by Kilborn SNC Lavalin. The tailings reclaim operation will then continue at this rate for a period of thirteen years. A Japanese trading company will market Cassiar's projected output.

WET milling

Nephrite Jade  
 cost by buyer "lost" and to cash flow  
 50-100 tons per yr (25% market)

Cassiar fibre has always been the first choice of supply for customers due to its unique physical properties. Asbestos related health controversies were caused by "amphibole" fibres of African origin that have entirely different chemical compositions and are now banned. Contrary to perceptions, the global consumption of chrysotile fibre is still 2.5 million tonnes per year. Inexpensive and durable chrysotile cement products continue to be the preferred building materials in tropical countries where alternate metal sheets corrode and wood products disintegrate. Furthermore, recent court decisions in Canada and the USA have virtually exonerated chrysotile fibre with regard to health risks. As a result, chrysotile fibre markets have stabilized and in fact, have resumed their growth in developing countries. Fibre prices are increasing and shortage of good quality chrysotile is expected to develop.

'highest' quality  
 Magnesium  
 4.5% demand growth for 15.  
 (enough for 100  
 → leaching operation  
 serpentin → MgC  
 (transport to Tidewater = 10¢/lb)

McDerm  
 30MT (u/g) - richest dep. known

Once the tailings heap is re-processed at Cassiar, the re-development of conventional reserves on the property will be considered. The underground deposit at Cassiar is valued at \$3.0 billion. This is by far the richest and one of the largest reserves of chrysotile fibre in the world. As alternate reserves in Quebec and elsewhere are depleted and chrysotile regains its rightful reputation, Cassiar will become a major supplier of industrial fibres in the future. The provincial government is supportive of the reclamation phase of the project as it provides for the environmental cleanup of the property while some wealth is generated in the process.

Serpentine → Chrysotile (white) ⇒ minimal health risk!  
 = 500,000 tons of recoverable chrysotile

Tailings  
 70 M tons @ 4% fibre

Plus 6M tonnes of talus material (up to 10% fibre) i.e. blend capability

Value = \$500M!  
 At Present → 30 tonnes fibre/day (closed last week) ⇒ spent < \$10 to date  
 Industrial Minerals in Canada - began prod. in August  
 Throughput at front end ~100 TPD  
 P.O. ex. ...