

CWSF 2007 - Truro, Nova Scotia



Brandon Webber

Microbial Mining, An Innovative Approach

Division: Engineering & Computing Sciences / None

Category: Senior

Region: Timmins

City: Kirkland Lake, ON

School: Kirkland Lake Collegiate & Vocational Institute

Abstract: This study examines the use of *Thiobacillus ferro-oxidans* in the oxidation of base metal sulfide ores. In a period of 5 days, it was found that the given lab culture was able to oxidize 64 percent of its medium, resulting in an extraction of .5 grams of copper metal. Cost analysis also demonstrated an affordable and effective means of low grade copper ore extraction.

Biography

Throughout my high school years, I developed enthusiasm for most activities available to me. I have participated in concert bands, drama festivals, and many science related activities that I feel are important to my sense of self. My strongest drive has always been in the field of science. In the past five years, I have taken time to prepare many science fair projects, and also participated in several science and environment related competitions. At our school, I was one of the founders of the student science committee, which was formed to organize science related activities, such as our peer tutoring, science Olympics, and Envirothon competition teams. Outside of the academic community, I enjoy volunteering in many youth related programs. I began this work in my small community located 5 minutes east of Kirkland Lake, which involved helping a local youth group. My work then followed into my passion for model airplane construction and flying. After spending time in the JSANO school of arts model airplane program, aviation became a large interest in my life. I am also an avid cyclist during the summer, and skier during the winter. I enjoy such other activities as hunting, fishing, four-wheeling, and snowmobiling.

Awards

Value

Honourable Mention - Earth & Environmental Science - Senior	\$100
Sponsor: Petro-Canada	
Total	\$100

