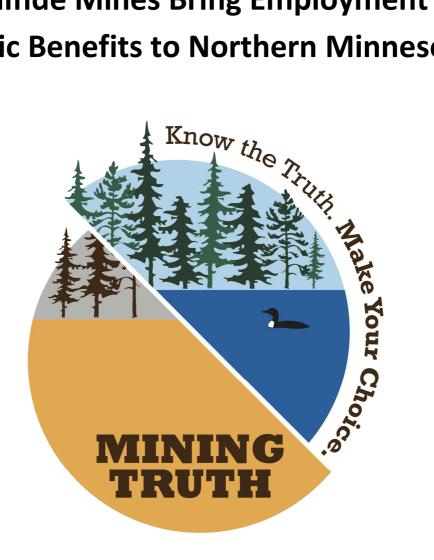
A Mining Truth Report

Will Sulfide Mines Bring Employment and **Economic Benefits to Northern Minnesota?**



Conservation Minnesota Friends of the Boundary Waters Wilderness Minnesota Center for Environmental Advocacy

www.miningtruth.org

A Mining Truth Report

Will Sulfide Mines Bring Employment and Economic Benefits to Northern Minnesota?

Executive Summary

Supporters of the proposed PolyMet mine near Hoyt Lakes, Minnesota have cited significant economic and employment benefits to northern Minnesota communities if the mine is permitted. But the company's own predictions indicate **few hires will occur from nearby communities**. PolyMet predicts only 90 jobs, just 25 percent of their permanent hires, are likely to be from the local community.

Studies of similar mines across the country show **employment predictions are not always realized** as mine move from the planning phase to the operational phase, and that employment during mine operations undergoes significant fluctuations. Other studies show that mining communities as a whole do not experience the economic prosperity hoped for and predicted.

Issue Background

Northern Minnesota is the focus of new mining attention, with **two new sulfide mines being considered** and extensive mineral exploration taking place. "Sulfide mining" is a term used to refer to mining metals that are found in sulfide-bearing rock. In Minnesota, the sulfide mining proposals and exploration activities are focused primarily on extracting copper, nickel, platinum, palladium and gold.

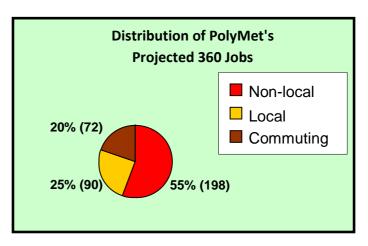
While the state has a history of iron mining, **sulfide mining has never been conducted in Minnesota**. Sulfide mining has raised concerns because of long-lasting toxic pollution to rivers, lakes and groundwater that has accompanied it elsewhere.

PolyMet's Declining Job Promises

The PolyMet Mining Corporation, a Canadian company, has proposed Minnesota's first sulfide mine near the communities of Hoyt Lakes, Babbitt, Biwabik and Aurora. The company states that the project "will generate significant economic benefits..." and that the mine will employ about 360 full-time jobs (Source: PolyMet website June 2012).

Mining Truth Page 2 August 2012

The Draft Environmental Impact Statement for the mine project reveals that 55 percent of those jobs will be "non-local" hires, filled by people relocating to the area. Another 20 percent of the hires will be commuting from distant locations such as Duluth. Only 25 percent, or 90 of the predicted jobs, might come from the local communities (Source: DEIS pg. 4.10-15).



PolyMet's job predictions have been repeatedly scaled back. In 2000, PolyMet predicted 450 jobs and a mine life-span of 45 years. PolyMet used a formula to calculate indirect employment of five to seven indirect jobs per direct job, a projection far beyond others in the region For example, another study on mining employment by the Bureau of Business and

Economic Research at the University of Minnesota Duluth, used fewer than two indirect and induced jobs per direct job. (Source: Bloomquist, L. 1999).

Over the past eleven years, the company altered those projections downward multiple times. By February 2011, estimates were at 360 full-time jobs when the mine is running at full capacity, 500 construction jobs, and a mine lifespan of 20 years.

Timeline of PolyMet Job Predictions

- **1999** 425 to 450 direct jobs; up to 3,600 indirect jobs; 40 year mine life.
- **2000** 450 direct jobs; 45 year mine
- 2006 400 direct jobs; 1,000 construction jobs
- 2011 –360 direct jobs; 500 construction jobs; 20 year mine life.

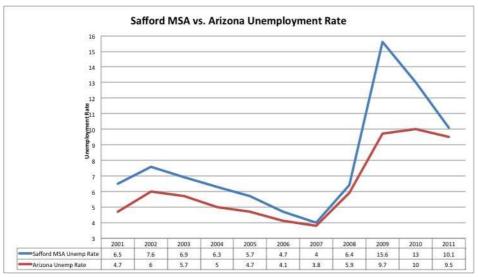
Unstable Job Markets

Examinations of similar mines elsewhere in the country show a pattern of fluctuating employment even when mines are operating. Employment at mines is subject to the volatility of the global metals market, technical problems at the facility, safety issues and temporary closures. Mines may meet their employment targets, but may be unable to maintain that target over time. Repeated lay-offs and mine closures contribute to economic instability for a mining-dependent community.

Examples of this instability in mining employment include the Safford and Morenci mines in Arizona. Both are owned by the same company and are adjacent to each other. At the height of the copper market in mid-2008, the Safford and Morenci mines were at full employment. But, as metal prices fell, the mines laid off workers repeatedly. By the end of that year, over 600

Mining Truth Page 3 August 2012

layoffs were made. In 2009, over 2,000 miners were laid off between the two mines (Wise and Conn 2008; Rudolf 2008.). Then, as copper prices began to increase again in late 2009 and 2010, the mine began hiring again (Freeport-McMoran Copper and Gold. May 2011).



During the economic recession of 2008 and the following years, the unemployment rate in communities near the Safford and Morenci Mines was far more severe than other parts of Arizona. (Source: http://left.mn/2012/06/mining-truth-about-those-jobs-jobs-jobs-part-3/)

Poor Economies in Mining Communities

Economic prosperity often fails to materialize for mining communities even when mines are fully operational and despite high mining wages. "Across the United States, mining communities instead are noted for high levels of unemployment, slow rates of growth of income and employment, high poverty rates, and stagnant or declining populations" (Source: Power 2005).

One analysis compared mining-dependent U.S. counties with those that are non-dependent. Between 1980 and 2000, "aggregate earnings in mining-dependent counties grew at only half the rate of other American counties...and per capita income grew about 25 percent slower." During this same time period, population growth in these counties was only one-fourth to one-eighth of the average of other counties in the country (Source: Power 2005).

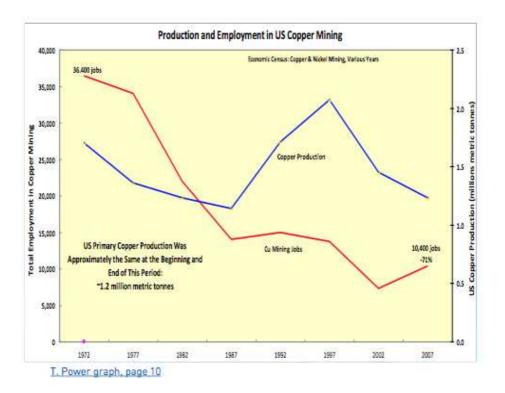
Another analysis conducted a literature review of relevant studies to examine whether extractive industries bring expected economic benefits to rural regions. "Contrary to the long-established assumptions...roughly half of all published findings indicate negative economic outcomes in mining communities, with the remaining findings being split roughly evenly between favorable and neutral/indeterminate ones." This study concludes, "Until or unless future studies produce dramatically different findings, there appears to be no scientific basis for

Mining Truth Page 4 August 2012

accepting the widespread, 'obvious' assumption that mining will lead to economic improvement" (Source: Freudenburg and Wilson 2002).

A 2003 study by the Sonoran Institute discovered an "inverse relationship between resource dependence and economic growth; the more dependent a state's economy is on personal income earned from people who work in the resource extractive industries, the slower the growth rate of the economy as a whole" (Rasker, van den Noort, and Carter 2004).

Poverty is higher in mining areas as well. **Counties dominated by mining show the highest rates of poverty of any industrial group.** As one researcher notes, "The important point to be drawn from all of these statistical results from an economic development perspective is that whatever might be said about the impact of mining on national economic development, in the U.S. these mining activities, in general, have not triggered sustained growth and development in the local regions where the mining took place" (Power 2005).



Many reasons account for the lack of long-term economic prosperity for mining communities: fluctuating market prices and employment; technological advancements that replace human labor; and depletion of the ore body, a nonrenewable resource. Mining is an industry with a history of booms and busts. In addition, mining creates a significant, lasting impact on the local environment. It is land-intensive, water-intensive, has a wide footprint, and brings a level of environmental degradation that can make the area a less attractive location in which to live and work. This means **mining inhibits economic diversification critical for the economic prosperity** of the wider community.

Mining Truth Page 5 August 2012

Protected Lands Benefit Neighboring Communities

Other research suggests that proximity to protected public lands leads to economic growth. A study of western states by the Sonoran Institute found the more public lands a county had or the closer it was to the protected lands, the faster the economic growth was for that county.

The study also concluded that for the states it studied, "the more diverse an economy, the faster it will grow. The more specialized, the slower it will grow, especially if the specialization is in mining, oil and gas development, logging, wood products manufacturing, or other resource extractive sectors" (Source: Rasker, van den Noort, and Carter 2004).

What is Minnesota Willing to Risk for Each Potential Job?

Financial assurance is a calculation of monetary costs required from a mining company to address potential or anticipated pollution at sulfide mines. Below are the financial assurance requirements for three sulfide mines in the country, and the number of jobs each mine employs or expects to employ. Dividing the financial assurance amount by number of jobs yields a calculation of the amount of long-term financial risk per job for each of these states.

Chino Mine, New Mexico		
Financial Assurance:	\$395 million	= \$897,000 risk per job
Employed:	440	
Red Dog Mine, Alaska		
Financial Assurance:	\$305 million	= \$677,000 risk per job
Employed:	450	
Eagle Mine, Michigan		
Financial Assurance:	\$23 million	= \$97,000 risk per job
Potentially Employed:	235	

Note: Because the track record of financial assurance shows that the amounts routinely fall short of what is necessary to respond to pollution, the financial risks per job are likely higher than shown here.

Will sulfide mining bring employment and economic benefits to Minnesota's northern communities? No cost-benefit analysis of sulfide mining's potential impacts has been conducted in the state.

Mining Truth Page 6 August 2012

Citations:

Bloomquist, L. November 12, 1999. Mining Firm Optimisitc from Tests Near Babbitt, Minn. Duluth News-Tribune.

DEIS. 2009. PolyMet Mining Inc./NorthMet Project EIS, Draft Environmental Impact Statement (EIS).

Freeport-McMoran Copper and Gold. May 2011. Economic Impact of the Morenci and Safford Mines Upon Graham/Greenlee Counties and Arizona – 2010.

Freudenburg, W.R. and Wilson, L.J. Fall 2002. Mining the Data: Analyzing the Economic Implications of Mining Nonmetropolitan Regions. Sociological Inquiry, Vol. 72, No. 4.

Power, T.M. 2005. The Economic Anomaly of Mining- Great Wealth, High Wages, Declining Communities. In Decision-Makers Field Guide.

Rasker, R., Alexander, B., van den Noort, J., and Carter, R. July 2004. Prosperity in the 21st Century West. Sonoran Institute.

Wise. H and Conn, S. December 28, 2008. Year in Review: Tanking Economy Hits Home at Mines. Silver City Sun-News.

Mining Truth Page 7 August 2012