

ECONOMICS – RISKS & BENEFITS OF PROPOSED SULFIDE MINES¹



PolyMet, Twin Metals, and researchers funded by the mining industry promote the benefits of proposed non-ferrous metal mines to Northeastern Minnesota communities. A closer look suggests that risks would outweigh the benefits.

What do we really know about the economics of sulfide mining areas?

Many non-ferrous metallic mining areas are synonymous with lagging economies and, even, persistent poverty and unemployment (Appalachia, Ozarks, Four Corners; Copper Towns of Butte, MT, Silver City, NM, Globe-Miami, AZ, the Upper Peninsula of MI; Gold and Silver Mining Towns: Silver Valley, ID, and Lead and Deadwood, SD).²

Why aren't non-ferrous mining towns prosperous?

1. **The Volatility of Metal Prices.** Changes in worldwide metal prices result in “boom and bust.” Copper prices were near \$4.00/lb. in the late 1970’s, when sulfide mining was last proposed in Minnesota, then dropped as low as \$1.00/lb in the early 2000’s.³
2. **The Impact of Labor-Displacing Technology.** New non-ferrous mines are even more automated than taconite mines. From 1972 to 2007, while copper production *remained constant* in the U.S., the number of jobs dropped by 71%. From 1979 to 2011 taconite mining employment in Minnesota declined by 57%.⁴
3. **Heavy Environmental Damage: An Economic Problem.** Sulfide mining results in long-term or permanent toxic water pollution. Minnesota’s copper-nickel deposits are lean and disseminated, so that the vast majority of rock removed would end up as reactive waste.
4. **The Displacement of Other, More Sustainable, Economic Activity.** Declining residential property values, pollution of drinking water, reduced acres for timber harvest and disruption of recreation-based businesses create long-term economic losses.

What do we know about claimed benefits from the proposed PolyMet sulfide mine?

PolyMet claims its would provide 360 jobs. But its most recent analysis reveals these are not full-time permanent jobs: “Employment: calculated in terms of jobs, **not FTE positions**. The model does not make a distinction between full-time, part-time, permanent, or temporary jobs.”⁵

How well are the economic risks and benefits of the PolyMet project analyzed?

The most recent PolyMet analysis admits it doesn’t analyze economic risks of a mining “bust.”: “Though this ‘boom and bust’ phenomenon is often present in mining economies, IMPLAN does not model this phenomenon.”⁶

¹ Prepared by WaterLegacy (August 2013). For questions, contact pmaccabee@justchangelaw.com.

² T. Power, *Thinking about the Costs & Benefits of Mining: A Holistic Approach*, Mining Impacts in the Lake Superior Watershed: A Basinwide Approach, Lake Superior Binational Forum (Mar. 23, 2012) <http://www.superiorforum.org/wp-content/uploads/2012/04/Tom-Power-Economics.pdf>

³ *Id.*

⁴ *Id.*

⁵ PolyMet NorthMet Preliminary Supplemental Draft Environmental Impact Statement (PSDEIS), p. 5.2.10-3.

⁶ *Id.*, p. 5.2.10-4

Profits for Multi-National Mining Companies and Copper to China?

- While profits and metals would be exported, the legacy of toxic pollution would remain. Glencore International, the \$155 billion multi-national corporation that is PolyMet's primary investor and joint venturer is notorious for illegal dealings with rogue states (Iran, South Africa), and for financial manipulation to evade local taxes, human rights and labor violations and pollution from mines and smelters worldwide.⁷
- Glencore owns the rights to all production from the PolyMet sulfide mine and plant for at least the first five years of operations.⁸
- As a condition with its 2013 merger with the Xstrata mining company, Glencore must continue to supply China with copper concentrate for the next eight years.⁹

Sulfide Mining Creates Pollution Risks for Taxpayers and Local Communities

Even when companies say they will comply with water quality standards, sulfide mines pollute:

- A study of a representative sample of modern sulfide mines in the U.S. found that 100% of open pit mines in climates similar to northeastern Minnesota violated water quality standards. In the US as a whole, 84% violated water quality standards; of these only 16% had predicted a high potential for contaminant leaching. Among sulfide mines predicting low acid mine drainage potential, 89% in fact resulted in on site acid mine drainage.¹⁰
- The hardrock mining industry is the largest source of Superfund liability to taxpayers, costing more than \$2.6 billion so far. EPA has estimated that the cost of remediating existing pollution at hardrock mining facilities is between \$20 and \$54 billion.¹¹

Northeastern Minnesota Economy at Risk from Sulfide Mining

- Outdoor recreation in Minnesota generates \$11.6 billion in sales, 118,000 direct Minnesota jobs, \$3.4 billion in wages and salaries, and \$815 million in state and local tax revenue.¹²
- According to the IRRRB, in 2009 Northeastern Minnesota tourism provided 18,000 jobs and \$800 million in annual gross sales.¹³
- In 2012, tourism provided 12% of Northeastern Minnesota's employment, while mining represented 3.3%. Tourism provided nearly 4 times the jobs provided by mining.¹⁴

Sulfide mining would risk local property values, safe drinking water, jobs and economies.

⁷ PolyMet & Glencore: An Overview, http://waterlegacy.org/Glencore_PolyMet_Report see also <http://en.wikipedia.org/wiki/Glencore> Update on assets <http://quotes.morningstar.com/stock/glcnf/s?t=GLCNF>

⁸ PolyMet Annual Report (Jan. 31, 2013) <http://quote.morningstar.com/stock-filing/Annual-Report/2013/1/31/t.aspx?t=XASE:PLM&ft=&d=b89a2a4a2a43c54340d97e0e11a88e6e>

⁹ "Glencore Wins China's Blessing for Its \$30 Billion Takeover of Xstrata," *New York Times* (Apr. 16, 2013)

¹⁰ J. R. Kuipers et al., *Comparison of Predicted and Actual Water Quality at Hardrock Mines* (2006) http://www.earthworksaction.org/library/detail/comparison_of_predicted_and_actual_water_quality_at_hardrock_mines/#.UT1KUldriwk

¹¹ EPA-HO-SFUND-2009-0265-0001, 74 Fed. Reg. 143 (July 28, 2009) <http://www.regulations.gov/#!documentDetail:D=EPA-HQ-SFUND-2009-0265-0001>

¹² *Wilderness is good for jobs and good for us*, Duluth News Tribune, Mar. 20, 2013.

¹³ Northeastern Minnesota jobs, businesses, economy boosted by impact of tourism industry (May 6, 2011) <http://mn.gov/irrb/media/news/news-detail.jsp?id=285-49992>

¹⁴ Distinguishing Industries of Northeast Minnesota, MN. DEED (Sept. 2012), http://www.positivelyminnesota.com/Data_Publications/Employment_Review_Magazine/September_2012_Edition/Distinguishing_Industries_of_Northeast_Minnesota.aspx