



## Perpetual Treatment

- **MN Rule 6132.3200** does not allow perpetual treatment: “To receive a permit to mine, the permittee must be able to close the mine in such a way that it is stable, free of hazards, minimizes hydrologic impact and release of substances, and *is maintenance free.*”
- The PolyMet SDEIS states that “long-term” (>500 years at the Plant Site and >200 years at the Mine Site) treatment of wastewater is needed which means the site will not be maintenance free at closure.
- The General Accounting Office, in testimony before the Senate Committee on Energy and Natural Resources, presented findings that the federal government spent at least \$2.6 billion to remediate hardrock mine sites from 1998 to 2007.<sup>1</sup> In 2009, the US Environmental Protection Agency cost estimate for existing hardrock mine pollution clean-up was \$20-\$54 billion<sup>2</sup>.
- In 2009, as part of the largest environmental damage bankruptcy case in U.S. history, the mining company ASARCO was ordered to pay \$194 million billion to resolve environmental liabilities from operations that contaminated land, water, and wildlife resources on federal, state, tribal, and private land.<sup>3</sup>
- Acid mine drainage is one of the greatest environmental liabilities associated with mining, especially in pristine environments like the Project mine site, that have economically and ecologically valuable natural resources.<sup>4</sup>
- Low sulfur rock (Duluth Complex 0.15% S, Virginia Formation 0.2 – 1% S) will produce acid mine drainage. The Virginia formation comprises north wall of the east pit. In-pit disposal of waste rock with sulfur concentrations of 0.2 % has required perpetual wastewater treatment for the Zortman Landusky mine in Montana, a superfund site, requiring \$948,000 per year for reclamation maintenance paid for by taxpayers<sup>5</sup>.

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<sup>1</sup> GAO-08-574T (March 12, 2008), available on-line at <http://www.gao.gov/new.items/d08574t.pdf>

<sup>2</sup> EPA-HO-SFUND-2009-0265-0001. 74 Federal Register 143, July 2009.

<sup>3</sup> Dept. of Interior News Release, “ASARCO Settlement Provides \$194 Million for Federal, State and Tribal Wildlife and Habitat Resource Restoration” (Dec. 10, 2009), available on-line at <http://www.fws.gov/pacific/news/2009/ASARCOSettlementNR.pdf>

<sup>4</sup> Reclamation Research Group (Bozeman, MT) for USFWS Anchorage, Alaska, “Acid Mine Drainage and Effects on Fish Health and Ecology: A Review” (2004), Ex. G.

<sup>5</sup> [http://www.blm.gov/mt/st/en/fo/lewistown\\_field\\_office/zortman.html](http://www.blm.gov/mt/st/en/fo/lewistown_field_office/zortman.html)

- The State of Minnesota has spent millions of dollars remediating mine sites (e.g. Reserve Mining).<sup>6</sup>
- There are no hard rock surface mines that exist today that can demonstrate that Acid Mine Drainage can be stopped once it occurs on a large scale.<sup>7</sup> Inaccurate pre-mining characterization and interpretation often results in a failure to predict impacts to water quality and aquatic life.<sup>8</sup> Evidence from literature and field observations suggests that permitting large scale surface mining in sulfide-hosted rock ***with the expectation that no degradation of surface water will result due to acid generation*** conveys enormous risk to water quality and fisheries.<sup>9</sup>

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<sup>6</sup> See, e.g., Greg Vandegrift, KARE 11 News, “The Dirty Legacy of Reserve Mining” (Nov. 29, 2006), available on-line at [http://www.greatlakesdirectory.org/mn/121406\\_great\\_lakes.htm](http://www.greatlakesdirectory.org/mn/121406_great_lakes.htm)

<sup>7</sup> Earthworks Factsheet, “Hardrock Mining: Acid Mine Drainage,” available on-line at [http://www.earthworksaction.org/pubs/FS\\_AMD.pdf](http://www.earthworksaction.org/pubs/FS_AMD.pdf)

<sup>8</sup> J.R. Kuipers et al., Comparison of Predicted and Actual Water Quality at Hardrock Mines (2006).

<sup>9</sup> *Id.*

Information prepared by staff from the tribal cooperating agencies and supporting intertribal agencies: Fond du Lac Band of Lake Superior Chippewa, Grand Portage Band of Lake Superior Chippewa, Bois Forte Band of Chippewa, Great Lakes Indian Fish & Wildlife Commission and the 1854 Treaty Authority