



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
UPPER PENINSULA DISTRICT OFFICE



JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

April 23, 2009

Ms. Victoria Peacey
Kennecott Eagle Minerals Company
504 Spruce Street
Ishpeming, Michigan 49849

Dear Ms. Peacey:

The Department of Environmental Quality (DEQ) contracted Lorax Environmental Services Ltd. to conduct a technical review of the Humboldt Mill Project Mining Permit Application. The application was submitted to the Office of Geological Survey of the DEQ on December 26, 2008, by Kennecott Eagle Minerals Company (KEMC) under the requirements of Part 632, Nonferrous Metallic Mineral Mining, of the natural Resources and Environmental Protection Act, 1994 PA 451, as amended. The review focused on the sections in the application that relate to the disposal of nickel/copper sulfide tailings from Humboldt Mill into the Humboldt Tailings Disposal Facility (HTDF), particularly the geochemical and limnological information.

Lorax has completed an initial review and has identified areas where supplemental information and data are needed to complete a thorough, accurate, and comprehensive review of your application. Part 632 provides for the submission of additional information and data to supplement and clarify information supporting the application.

Please respond by addressing the following:

The highlighted data are available in Portable Document Format (PDF) within various areas of the application; however, please provide the data as electronic databases (sorted databases or excel spreadsheets). The data and the location within the report are highlighted below to facilitate location of this information:

Volume II-B Hydrogeological Report
Appendix A-2: historical groundwater results (p. 18-72)
Appendix A-3: historical surface water results (p. 73-93)

Volume II-D Hydrogeological Report
Appendix E-2: groundwater results summary (p. 178)

Volume II-E Hydrogeological Report
Appendix F-2: surface water analytical results summary (p. 298)

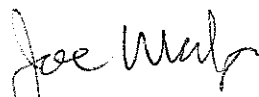
Volume II-H Humboldt Mill Supplemental Hydro and Biological Data Report
Appendix E: 2008 Groundwater Database (p. 3-14)
Appendix H: 2008 Surface Water Database (p. 1563-1599)

In addition to the database requests above, the following questions and requests are also of interest to us:

1. Is there any pore-water data for the Ropes tailings currently in the pit?
2. What will the water treatment process entail and are there any estimates of sludge volume?
3. The concentrations of dissolved Fe in the top 80 feet of water in the HTDF are elevated given the concentrations of DO in the same zone and pH conditions within the pit lake as presented in Figure 9 of Appendix D: Humboldt Tailings Disposal Facility, Hydrologic and Geochemical Mass Balance Model Report (Volume IA, pg. 139 of the PDF version). A similar pit lake chemical profile was reported in 1984 in a report prepared by Traverse Engineering Services to Callahan Mining Corporation; however, their data indicated total Fe concentrations in the water column which makes more sense geochemically (see pg 611 in the PDF version of Volume IIB for datasheet). In Volume IIA (Appendix B1): *Humboldt Mill Hydrogeological Report*, section 4.3.1, details on sample collection are given. However, there is no mention of filtering water samples. Please confirm whether filtering was performed, and whether it was performed in the field or the lab.

Thank you for your attention in regards to the requested information. If you have any questions regarding this letter, please feel free to contact me.

Sincerely,



Joe Maki
U.P. District Geologist
Office of Geological Survey
906-346-8563

JM:TC

cc: Mr. Jim Sygo, Deputy Director, DEQ
Mr. Harold R. Fitch, DEQ
Mr. Thomas Godbold, DEQ
Mr. Steven E. Wilson, DEQ
File: Part 632, Humboldt Mill Facility, Marquette County