

Comment: POA-2006-02047 Fish Creek Fairbanks Gold Mining Gil Mine

To who it may concern,

I can't comment on the *POA-2006-02047 Fish Creek Fairbanks Gold Mining Gil Mine Water Quality Certification of a Department of the Army Permit* in an educated manner because insufficient information is provided with the permit application.

The main Fort Knox deposit is a "clean" deposit with a low sulfide content (<1%) hence has very little potential for acid mine drainage and associated heavy metal leaching. The near by Dolphin deposit (within 10 miles of the Fort Knox mine) has a high sulfide content (>10%) and hence likely has high potential for acid mine drainage. Acid mine drainage is a major concern for both flora, fauna, infrastructure, and community healthy.

*"There are similarities between Dolphin and other IRGDs of interior Alaska as well as poorly understood differences. Understanding of differences and similarities is limited due to limited knowledge of the Dolphin deposit as well as of the others. While Dolphin is only 9 km from the Fort Knox deposit in a pluton of the same age, it contains considerably more sulfide minerals (typically > 10% vs. < 1% for Fort Knox) and little obvious Bi or Mo minerals."*¹

The Gil deposit has sulphides, but since no information is provided in the water cert permit on the actual %sulfides by volume present nor heavy metals present, it is not clear if acid mine drainage is a concern.

*"Gold mineralization at Gil primarily occurs in **quartz-sulphide** and quartz-carbonate veins, clay-filled shear zones, and limonite-stained fractures, which crosscut nearly all lithologies. Gold mineralization is widespread, but both gold grade and continuity are related to complex interactions among hydrothermal fluids, host rocks, and structure."*²

Without more information provided on the geochemical nature of the Gil deposit, the permitting process is occurring blind and any sort of public comment-input is hampered.

I kindly request appropriate geochemical data is provided to the public-posted, and the comment period extended. It is very possible the Gil deposit is also a clean deposit like Fort Knox, but there is no way of knowing given the available information.

Sincerely,

Jeff Benowitz
PhD Geology

Reference:

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¹Raymond, Luke M. *Gold and base metal mineralization of the Dolphin intrusion-related gold deposit, Fairbanks Mining District, Alaska*. University of Alaska Fairbanks, 2018.

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²Fort Knox Mine Fairbanks North Star Borough, Alaska, USA National Instrument 43-101 Technical Report