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Mr. Loren Kelly  
Chair NWMDRC

**Re: Yellowjacket Gold Mine Project - Response to NWMDRC Scoping Review of Small Mines Act Permit Application – April 20, 2009**

**ML /ARD Response**

**Discussion Item 9 – ML/ARD – Potential issues with future pits, because all assessments completed to date only concentrated on the bulk sample area. What are we doing to address the future pit area and what confidence level (geologically) do we have?**

Geologically and structurally, based on diamond drill core logs and analyses, the entire length of the Yellowjacket Gold Zone (containing the 4 pit phases) lies within a cohesive fault structure. Within the fault structure, lithological units occur as repetitive sequences consisting of predominantly volcanic and ultramafic rocks, with minor intrusive dyke constituents (diabase, diorite, gabbro). Based on the results from over 100 diamond drill holes, these units are believed to be representative throughout not only the existing bulk sample pit but also the entire area expected to be disturbed by future pit excavations.

The bulk sample pit or Phase I pit as discussed in the Small Mines Act Permit Application is the pit from which mineralized and waste rock material will be extracted during 2009 operating season. This material is what was previously characterized (see Yellowjacket Property Bulk Sample Waste Characterization Program, Lorax Environmental, 2009). Lithologies identified and characterized by Lorax for the bulk sample pit included: 11 ultramafics (serpentinite and ultramafic), 10 volcanics (andesite and basalt), 1 intrusive (diabase) and 1 fault zone (melange).

In 2009, prior to bedrock pit excavations outside of the existing bulk sample pit (scheduled to commence in 2010), a more comprehensive ML/ARD program will be completed (see Technical Memorandum 2009 Yellowjacket Water Quality and Waste Sampling Program and Memorandum ML/ARD Sample Selection – Yellowjacket Property, Lorax, 2009). This waste sampling program will consist of four parts, including ML/ARD potentials for the future pit lithologies (from 33 additional diamond drill core samples), surface waste and ore dump stockpiles (15 samples), tailings (3 samples), and field leach bin construction and sampling.



Diamond drill core samples from future pit areas have been collected and are currently being characterized. For comparison to the samples collected from drill core in the bulk sample pit area, drill core samples from the future pit areas include the following lithologies: 13 ultramafics, 10 volcanics, 7 intrusives (diabase and gabbro), and 3 fault zones (melange).

Due to the localized nature of the Phase 1 to 4 pits, the materials sampled for ML/ARD characterization were collected from within, or as close to, the proposed pit delineations as possible. Every effort was made to select samples that are: a) representative of the lithologies in and around the Yellowjacket deposit; and b) as close as possible to the proposed expansion pit areas. The sampling strategy used for this investigation targets specific lithologies from portions of the drill holes located within, or closest to, the proposed pit extension in order to obtain samples representative of the waste and "ore" that will be generated during excavation activities. Therefore, the suite of samples selected includes all potential materials that may be encountered during excavation of the proposed pits.

Although the gold mineralization at Yellowjacket has a strong heterogeneity, the host lithologies throughout the fault zone area very consistent. Waste characterization work completed on the bulk sample pit can be appropriately correlated to anticipated results for lithologies in future pits. Even though this correlation makes lithologic sense, a robust program of additional ML/ARD sampling is currently underway.

Regards,

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Yellowjacket Joint Venture

Cc: Jessy Chaplin MEMPR – NWMDRC Coordinator