Peter Lighthall, P.Eng.
Consulting Geotechnical Engineer

6 June 2015

Huakan International Mining Inc.
890-580 Hornby Street
Vancouver, BC V6C 3B6

Attn: Mr. Paul Cowley, P.Geo.
Mine Manager

Re: Greenwood Gold Project – Greenwood (Zip) Mill – M-233 Permit
Letter of Assurance re Tailings Dam Critical Conditions

Dear Mr. Cowley:

1. INTRODUCTION

This letter presents a review to assess whether the risk conditions that were identified as critical to the August, 2014 Mt. Polley tailings dam failure are applicable to the Greenwood Gold Project, as requested in the Memorandum from the Chief Inspector of Mines dated February 3, 2015. The review was undertaken by the writer as per your telephone request. The review was based on a site visit on May 29, 2015 and on data contained in project documentation, listed in the References at the end of this letter.

2. BACKGROUND

The Greenwood mill is located between Greenwood and Grand Forks, BC, just east of the site of the historic Phoenix Copper mine. Ore from the nearby Lexington-Grenoble underground gold-copper mine was processed in the 200 tpd mill. The mill was constructed in 2007 and 2008 by Merit Mining Corp, and operated for 8 months. Operations were suspended in late 2008. The company name was changed to Huakan Mining in 2010. The property has been under care and maintenance since 2008.

Tailings from the Greenwood mill were deposited in a geomembrane-lined tailings storage facility (TSF). The TSF was designed and constructed under the supervision of Klohn Crippen Berger (KCB). The starter dam is a zoned rockfill embankment, constructed from earthfill and rockfill borrowed mainly from within the impoundment. The starter dam is approximately 15 m high, with the ultimate dam planned to be approximately 25 m high. The crest of the starter dam is at elevation 1197.5m. The downstream toe is buttressed with a rockfill toe-berm up to El. 1187 m. The starter dam has upstream and downstream slopes of approximately 2H:1V and a crest width of 10 m. The total length of the starter dam is about 300m. The TSF impoundment is lined with a 40-mil LLDPE geomembrane liner up to the starter dam crest. The TSF contains approximately 52,000 tonnes of tailings, which is approximately 40,000 m^3, and currently stores approximately 20,000 m^3 of water. The remaining storage volume up to the dam crest is approximately 65,000 m^3.

3755 North Naramata Road
Naramata, B.C.
Canada V0H 1N0
(250) 496-4135

3. REVIEW OF RISK CONDITIONS

Following are the potential risk conditions that the Chief Inspector's memorandum requested be addressed.

1. Undrained shear failure of silt and clay foundations

a. Including a determination with respect to whether or not similar foundation conditions exist below the dams on the site.

Geotechnical investigations were carried out by KCB for design of the tailings dam, consisting of test pits and drill holes. A total of 9 test pits and 3 drillholes were executed in the foundation and downstream toe area of the dam. The depth to bedrock encountered ranged from 1.5 m to 5.0 m, with an average of 3.3 m to bedrock. The foundation soils encountered in the dam foundation area are characterized as outwash sand and gravel. Some glacial till exists beneath the sands and gravels, but the till is primarily upstream of the dam foundation and under part of the upstream toe. The outwash sands and gravels consist of a dense, angular silty sand gravel material, which would be expected to have ample shear strength From the site investigation data, there is no indication of any weak glacio-lacustrine soils in the dam foundation.

b. Whether or not sufficient site investigation has been completed to have confidence in this determination

The 9 test pits and 3 drill holes used to characterise the dam foundation were spaced over a length of about 250 m of the main embankment, not including the abutments which are primarily on bedrock. This program represented an average spacing of investigation points less than 25m along the length of the main embankment. This spacing is considered sufficient to provide good confidence in the foundation characterization.

c. If present, whether the dam design properly accounts for these materials, and

N/A

d. If any gaps have been identified, a plan and schedule for additional sub-surface investigations.

N/A

2. Water Balance Adequacy

a. Including the total volume of surplus mine water (if any) stored in the tailings facility

The tailings impoundment has been in care-and-maintenance status for the past 7 years, and has reached a state of water balance equilibrium. Diversions ditches are in place all around the facility, diverting all upslope runoff. The only water that enters the pond is direct precipitation on the pond and inner dam slopes. Records maintained by mine security personnel show that there is an annual fluctuation of about 1 m or less, with water accumulating in winter and evaporating in summer. The upper range that water has reached in the pond is a level about 2.5 m below the dam crest. The volume of water in storage is estimated to be in the order of 20,000 m^3.

b. The volume of surplus mine water that has been added to the facility over each of the past five years

No surplus water has been added to the facility in the past five years.

c. Any plans that are in place or that are under development to release surplus mine water to the environment

No plans are in place to release water to the environment. In 2014 Huakan constructed a spillway as recommended in the KCB (2014) Dam Safety Review, with its invert 1.5 m below the dam crest. The water level has historically never been within 1.0 m of the spillway invert.

d. Recommended beach widths, and the ability of the mine to maintain these widths

There are generally no beaches in place on the dam, as the facility did not operate long enough to develop beaches. As a lined facility, beaches are not key to the integrity of the dam.

e. The ability of the TSF embankments to undergo deformation without the release of water (i.e. the adequacy of the recommended beach width)

The embankment is able to undergo deformation within the limits of extensibility of the LLDPE geomembrane liner. LLDPE is known to accommodate considerable strain, and to date there appears visually to have been no discernable embankment deformations.

f. Provisions and contingencies that are in place to account for wet years, and

The spillway was constructed to allow emergency release of water in the event of an extreme wet year. It is not anticipated that the spillway would discharge under any but extreme circumstances.

g. If any gaps have been identified, a plan and schedule for addressing these issues.

Gaps identified in the KCB (2014) DSR were:

- *the need for a spillway, which was rectified in 2014, and*
- *the recommendation to install deformation monitoring monuments. It is recommended that Huakan install these in 2015.*

3. Filter adequacy

a. Including the beach width and filter specifications to prevent potential piping

The earthfill zones in the starter embankment consist of a broad upstream Zone B, General Earthfill, and a downstream Zone C, Rockfill. The original design had included a Zone D Filter/Transition between Zones B and C. The as-constructed materials used for Zones B and C were in actual fact both broadly-graded materials that are essentially filter compatible. Zone B is primarily sandy gravel with some silt, and Zone C is sandy gravel with cobbles and boulders. At the low gradients to which the dam could be subjected, these broadly graded materials will have adequate filter compatibility.

Regardless of filter compatibility, the embankment relies primarily on the geomembrane liner for seepage control. Piezometer readings indicate that the embankment is fully drained, with no phreatic water levels within the embankment.

b. Whether or not the filter has been constructed in accordance with the design

KCB (2008) As-Constructed Report presented the results of 32 grain size analyses carried out for construction quality control. The results were plotted and were shown to be within the specified grain size distribution envelopes. KCB (2014) stated that analyses of earthfill materials showed satisfactory results with all of the curves fitting within the technical specifications.

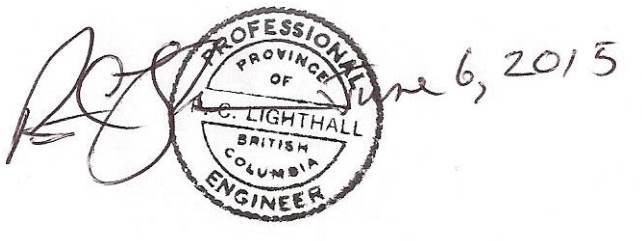
c. If any gaps have been identified, a plan and schedule for addressing these issues.

N/A

4. CLOSURE

I trust this letter will provide the assurance necessary that there are none of the conditions present at the Greenwood TSF similar to those that contributed to the Mt. Polley failure. If any additional information is required, the reports and data are available from Huakan or from the writer.

Yours truly,



Peter C. Lighthall, P.Eng.
Consulting Geotechnical Engineer

REFERENCES

Klohn Crippen Berger, 2007. Greenwood Tailings Storage Facility, Detailed Design Report, prepared for Merit Mining Corp., June 14, 2007.

Klohn Crippen Berger, 2008. 2007 Greenwood Tailings Facility - Starter Dam“As-Constructed” Report, prepared for Merit Mining Corp., January 31, 2008.

Klohn Crippen Berger, 2014. Greenwood Gold Project Tailings Storage Facility, Dam Safety Review 2014. Report prepared for Huakan International Mining Inc., November 25, 2014.