



October 25, 2005

File:18040-02-07/MTPO/01
Mine No.: 1101163

Howard Bradley
Imperial Metals Corporation
PO Box 12
Likely BC, V0L 1N0

Dear Sir:

Re: Mine Inspection, October 13, 2005
Property: Mount Polley Mine

Attached is a copy of my Geotechnical Inspection Report for the above noted property and date.

Please have this report posted in a conspicuous place on the property in accordance with Section 30(1) of the Mines Act.

As noted on page one of the report, please provide comments within 15 days.

Yours truly,

Nick Rose, P. Eng.
Inspector of Mines, Geotechnical

Enclosure

cc Chris Carr, Stephen Rothman, Bruce Milligan

Ministry of Energy, Mines and Petroleum Resources



Mining and Minerals Division

Report of Inspector of Mines Geotechnical

(Issued pursuant to Section 15 of the Mines Act)

Inspection No.: 12476
File: 18040-02-07/MTPO/01
Mine No: 1101163
Emp/Cont: 0 0
Orders H&S: RECL:
Stop Work:

Name of Property: **Mount Polley Mine** Permit No.: **M-200**
Location: **Likely**
Owner, Manager: **Howard Bradley**
Company: **Imperial Metals Corporation**
Address: **Vancouver BC V6C 3B6**
Persons Contacted: **Terry Isaacs, Ron Martel, Jeff Hammerlind, Dayle Rusk**
Type of Mining: **METAL MINE - SURFACE**
Date of Inspection: **October 13, 2005**
Copies To: **Chris Carr, Stephen Rothman, Bruce Milligan (MEMPR)**

Written response is required from the Mine Manager within 15 days of receiving the report. In this document, Code means Health, Safety and Reclamation Code for Mines in British Columbia

An inspection of the tailings storage facility (TSF) was carried out in the company of Ron Martel. The Bell and Wight Pits, Bell Dump and Northeast Zone Dump were inspected in the company of Terry Isaacs and Jeff Hammerlind. A meeting to summarize the results of the inspection was held on the afternoon of October 13 (Terry Isaacs, Jeff Hammerlind and Dayle Rusk in attendance).

General

The following items are required by the Ministry based on conditions outlined in Permit M-200 amendments dated November 1, 2004 and August 2, 2005 and Chris Carr's (MEMPR) geotechnical inspection report dated February 17, 2005:

- A copy of the Golder Associates report that confirms the dump design assumptions for the Northeast Zone Dump based on test pit results.
- A waste dump construction and monitoring procedure.
- A copy of the pit slope monitoring manual.
- A copy of the design report for the thick overburden soils in the southeast quadrant of the Wight Pit.

Tailings Storage Facility

The Stage 3c dam raise is understood to have been adjusted by the design consultant to incorporate an overall raise of 1.5m to the 944m elevation in 2005, instead of the previously planned 2.5m raise to the 945m elevation. This adjustment was made to reflect the changes in mill start-up date and has been stated by the design consultant that the reduced height will not impact storm water storage and freeboard requirements. Construction of the till core (Zone S) was completed to between approximately the 946 and 947m elevations, slightly short of the permitted elevation of 948m. It is understood that material specifications and compaction testing results for the 2005 construction season were within design specifications.

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Inspector of Mines. Geotechnical

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The TSF pond level was at the 942.4m elevation at the time of the inspection. The beach on the southwest side of the impoundment was noticeably narrow or submerged. It is understood that a tailings deposition plan is being developed to discharge tailings from the Perimeter, Main and South Embankments to help develop beaches and manage the location of the pond in accordance with recommendations from the design consultant.

Cariboo Pit and Bell Pit Access Road

The Cariboo Pit was observed from the west wall. Mining in the pit is complete and the pit bottom is flooded. An access road is being developed (dumped) along the lower east wall to join with the in-pit waste dump from the Bell Pit. Waste dump and haulage road construction and monitoring shall be carried out in accordance with standardized procedures, as requested above.

Bell Pit

The Bell Pit was observed from the 1168m Level on the north wall and from the 1180m Level on the southeast wall. Mining was active on the 1144m Bench. In general, bench performance appears satisfactory and no signs of deep seated instability were noticed. No baseline prism monitoring has been established to-date.

Bell Dump

The Bell Dump was observed to the northwest of the Bell Pit. It is understood that dumping in all areas of the mine consists of dumping short and dozing over the dump bank. No signs of large settlements or dump instability were noticed.

Wight Pit

The Wight Pit was observed from the upper west wall at approximately the 996m elevation and at the pit bottom at approximately the 940m elevation. The lower pit benches in overburden soils appear to be performing satisfactorily. A sump was excavated to the 936m Level. Four pumping wells have been established to the east between the pit crest and Polley Lake.

The upper west wall benches are being excavated in blocky, fractured bedrock materials with noticeable surface weathering near the crest of the slope. A review of bench performance is required during the design consultant's next site visit to confirm whether design assumptions (i.e., structural and rock mass conditions, design catchment berm widths, etc.) are being achieved. No signs of deep seated instability were noticed during the inspection. No baseline prism monitoring has been established to-date.

Northeast Zone Waste Dumps and Haulage Road

The Northeast Zone Dump was observed from the haulage road between the Mill and the Wight Pit (Mill Haulage Road) and from the haulage road being constructed between the Northeast Zone and the TSF (TSF Haulage Road). Dumping on the rock portion of the Northeast Zone Dump was not active at the time of the inspection, but is understood to occur at the south end when haulage is inactive on the TSF Haulage Road below, as per permit requirements for the TSF Haulage Road (Permit M-200 Amendment dated August 2, 2005). However, development of the Northeast Dump has not followed the recommended design by Golder Associates (October 19, 2004 report) involving bottom-up construction of three 20 to 40m high benched lifts, defining an overall 2:1 slope. Construction of the Northeast Zone Dump shall be undertaken in accordance with the design provided by the design consultant, as per conditions of Permit M-200 Amendment dated November 1, 2004. Dump slope stability monitoring shall be undertaken in accordance with the permit conditions. It is understood that a variance application is being prepared by MPMC that



would allow dumping on the Northeast Zone Dump while haulage is active on the TSF Haulage Road, but would require development of construction, operation and monitoring procedures to provide adequate protection for personnel on the TSF Haulage Road and for Polley Lake from waste dump run-out potential. No signs of large settlements or instability were noticed on the rock portion of the Northeast Zone Dump.

An overburden soil stockpile that shows signs of instability has been developed on the northern portion of the Northeast Zone Dump. Materials from the stockpile have slumped down-slope to the location of the approximately 10m high toe buttress constructed alongside and upslope of the TSF Haulage Road. It is understood that at least one wireline extensometer is being used to monitor the stability of the overburden soil stockpile. Development of the soil stockpile has been shut down until a dumping and monitoring plan is developed, and is submitted to the Chief Inspector for approval, that provides adequate stability for the waste rock and soil materials and protection to personnel on the TSF Haulage Road.

With respect to the stability of the overburden soil materials and development of the Northeast Zone Dump, the following information shall be provided to the Geotechnical Inspector within 7 days of the receipt of this report:

- Slope monitoring procedures and slope movement threshold response criteria detailing monitoring frequency and type (i.e., visual and wireline extensometer), and operational response criteria for the TSF Haulage Road based on slope movement rates for the Northeast Zone waste rock and overburden soil dumps.
- Records for both visual and wireline extensometer(s) monitoring carried out to-date on the Northeast Zone Dump.



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