

July 7, 2008

File:18040-02-07

Mine No.: 1101163

Tim Fisch Mount Polley Mining Corporation Po Box 12 Likely BC, V0L 1N0

Dear Sir:

Re: Mine Inspection June 7, 2008

**Property: Mount Polley Mine** 

Enclosed 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,

Derek Apel, Ph.D., P. Eng. Manager, Geotechnical Engineer

**Enclosure** 

cc T. Fisch, A. Frye, R. Martel, K. Bellefontaine, C. Carr, B. Milligan, V. Koyanagi

Tel: (250) 952-0462 Fax: (250) 952-0481

## Ministry of Energy, Mines and Petroleum Resources

Mining & Mineral Division

# Report of Inspector of Mines

# Geotechnical

(Issued pursuant to Section 15 of the Mines Act)

Inspection No.:

15354

File:

18040-02-07

Mine No.:

1101163

Emp/Cont:

0

Orders H&S:

RECL 0

Stop Work:

Name of Property

**Mount Polley Mine** 

Permit No.

M-200

Location

Likely

Owner, Manager

Tim Fisch

Company

**Mount Polley Mining Corporation** 

Address

PO Box 12

Likely BC V0L 1N0

**Persons Contacted** 

T. Fisch, A. Frye, R. Martel

Type of Mining

**METAL MINE - SURFACE** 

Date of Inspection

6/7/2008

Copies To

T. Fisch, A. Frye, R. Martel, K. Bellefontaine, C. Carr, B.

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.

Inspection Report Text

INSPECTION ORDERS

MANAGERS RESPONSE OF ACTION TAKEN

Page

On June 10<sup>th</sup>, 2008 Bruce Milligan, Victor Koyanagi, Kim Bellefontaine, Ted Fuller, Chris Carr and Derek Apel of the Ministry of Energy, Mines and Petroleum Resources inspected Imperial Metals, Mount Polley Mine. A geotechnical inspection was conducted by Derek Apel and Chris Carr.

#### General

The mine life is expected to extend to at least 2013. Structural Geology shall be mapped on the mine plans.

It is also recommend that the mine shall institute a program trying to correlate the monitored ground movement with the mapped structural geology.

#### Conditions of the Permit issued December 5, 2007

Mine shall provide the MEMPR with a copy of Geotechnical Monitoring Procedure.

In this procedure the mine shall provide the Ministry with the names, credentials, and contact information of the personnel who is going to conduct and interpret the ground movement monitoring data and has the authority to evacuate the personnel when necessary.

The Procedure shall specify the frequency of monitoring and shall also list the threshold values for velocity and acceleration of the ground movement.

#### Test Leach

Oxide ore leaching started October 2007.

#### **Bell Pit**

#### SECTION: 6.23.2 Bench and Berm Widths

Poor to fair ground conditions were observed in the Bell Pit with benches being filled with loose material. Loose rock was observed on the left side of the road going out of the pit. The loose material shall be scaled off.

We were informed that one bench remains to be mined in the Bell Pit and will likely be completed at the end of June. PAG waste rock is sent to the Cariboo Pit for disposal. Approximately ten benches will be mined in the SE Zone Pit with PAG waste rock sent to Bell Pit.

#### Wight Pit

Mining in the Wight Pit is expected to be completed in October. Survey prisms are being used to monitor wall movement. Readings are sent to Golder Associates every week for review. Pit wall and overburden till dewatering has produced much less water than expected. Currently only one well is operational in the till. The water is pumped to the tailings impoundment. A push back of the upper benches on the west side of the pit has been undertaken to control fault related wedge instability in the area. On-going instrumentation and visual monitoring of this pit shall continue during mining operations.

Tension crack was noticed developing on the south west crest of the pit (Fig. 1). It appeared the crack was aligned with the main DO NOT MODIFY THIS TEXT

7/7/2008

fault structure striking North-West direction. The movement of the tension crack shall be monitored with both prism monitoring and by inserting steel pins on both side of the crack and monitoring the displacements.

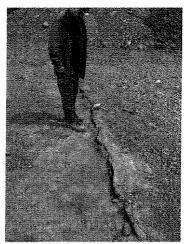


Fig. 1

It was observed that some water runoff was noticed to be feeding the main fault. The observed water runoff shall be diverted away or above the main fault.



Fig. 2

#### Springer Pit

Poor to fair ground conditions were observed on the first bench being excavated.

Mining started in the Springer Pit last fall. Mining is following a design prepared by Golder Associates. Waste rock will be consigned to existing disturbed areas or mined out pits.

#### Waste Rock Dumps

No waste dumps are currently proposed on the west side of the mine property.

### Tailings Storage Facility

The recent tailings line break and release of tailings is considered to be a potential dangerous occurrence and incidents such as these should be reported to MEMPR. As a result of the incident, and review by the mine, new operating procedures shall be developed. We understand that this has been completed.

The Operation, Maintenance and Surveillance manual shall be updated to reflect the current construction and monitoring requirements.

Piezometers shall be installed during Stage 6 dam construction to replace those no longer functioning and for additional monitoring purposes.

The following concerns were noted from an inspection of the facility and should be addressed:

#### **SECTION : 10.1.11** Departure From Approval

The specification for till used in the construction of the dam core (Zone S) requires that rock inclusions larger than 4 inches be removed prior to compaction. Rock boulders over 12 inch in size were noted in the till core and shall be removed by machine or by hand.



Fig. 3

#### **SECTION: 10.1.11** Departure From Approval

The design requires that an above water beach be developed against the upstream face of the dam. There was no beach observed in the vicinity of the SE corner of the main embankment. A beach shall be re-established as soon as possible in this area to meet the design objectives. In the meantime regular monitoring of piezometers in the dam in this area shall be undertaken.

#### Waste rock dumps

It was observed that some local excavation has been undertaken at the toe of waste dumps/stockpiles located near the plant site. Excavation and removal of material from angle-of-repose dump slopes shall be done with caution to avoid destabilization and collapse.

Derek Apel	Dated:	7/7/2008