



February 17, 2005

File: 18040-20-07/MTPO/01  
Mine No.: 1101163

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

Dear Sir:

**Re: Mine Inspection February 3, 2005**  
**Property: Mount Polley Mine**

Enclosed are two copies 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,

Chris Carr. P. Eng.  
Senior Geotechnical Engineer

Enclosure

cc John Errington, MEM Victoria  
Diane Howe, MEM Victoria  
Bob Lane, MEM Prince George



# Ministry of Energy and Mines

Mining & Minerals Division

## Report of Inspector of Mines Geotechnical

(Issued pursuant to Section 15 of the Mines Act)

Inspection No.: 11922  
File: 18040-20-07/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: Ron Martel

Type of Mining: METAL MINE - SURFACE

Date of Inspection: February 3, 2005

Copies To: John Errington, Bob Lane, Diane Howe

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

A meeting to review the mine plan, schedule for tailings storage facility development and tailings dam performance was followed by an inspection of the tailings storage facility in the company of Ron Martel (MPMC), Ken Brouwer (Knight Piesold) and John Errington (MEM). A brief tour of the Wight Pit area and existing Bell Pit was undertaken in the company of Dave Pow (MPMC consultant) and John Errington.

### General

The official mine start up date is March 2, 2005.

### Tailings Storage Facility

Construction of the permitted dam raise to elevation 945 m (Stage 3c) was in progress at the time of the inspection. The next dam raise to elevation 948 m is scheduled to start May 1, 2005 following submission of the design and permit approval. The tailings facility embankment dams are planned to be constructed to a final crest elevation of 965 m by the year 2012.

At the time of the inspection Zone C shell material was being placed. Due to the method of construction, segregation of the rock fill was noted with many large boulders rolling to the base of the slope. Better control is required to ensure the placement of a homogeneous well-graded dam shell that comprises material within the gradation specified. It is understood that construction of the downstream shell of the tailings dam with waste rock from Wight Pit is being considered. Details shall be submitted to the Ministry for review and permitting.

There is currently no discharge to the environment from the tailings impoundment. Projected water balance indicates there will be a surplus water volume and a discharge permit will be required from the Ministry of Water, Land and Air Protection. Plans for discharge from the TSF shall be submitted to MEM for review.

The annual Dam Safety Inspection report for 2003 was due November 30, 2004 and has not yet been received. The last Dam Safety Review was carried out in 1999 and is required every 7 years for a high consequence dam based on Canadian Dam Association guidelines. The next DSR is

Chris Carr. P. Eng.  
Manager, Geotechnical Engineering

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therefore due to be carried out in 2006.

Changes to seismic standards in the National Building Code are expected to be issued soon. It will therefore be necessary to check the tailings dam design (for mine operating period) to confirm adequate seismic stability under the revised standard.

Reclamation of the final downstream dam slope with a soil cover is required. Rather than spreading the cover after completion of the dam embankment to final height it has been suggested that it may be more efficient to place and spread the soil as each lift of the downstream shell is placed, which would allow for progressive reclamation.

### **Wight Pit**

The pit is in the early stages of development. Two pumping wells have been installed between the pit and Polley Lake and two more are scheduled for installation prior to mining. A design for mining the overburden soil in the southeast quadrant of the pit has not been received.

### **Waste Dumps**

A waste dump construction and monitoring procedure is required with a copy submitted to the Chief Inspector.





Mt. Polley - TSF  
Dam raise in progress

February 3, 2005





Mt. Polley T.S.F.



Feb 3, 2005



Construction of  
d/s shell.

Mt. Polley

General view of TSE  
- reclaim barge to right of photo

Feb 3, 2005

