



**Ministry of Energy, Mines and Petroleum Resources**  
 Mining & Mineral Division  
**Report of Inspector of Mines**  
**Reclamation and Permitting**  
 (Issued pursuant to Section 15 of the *Mines Act*)

Inspection No.: 6448  
 File: 18040-20/09  
 Mine No.: 1101163  
 Emp/Cont: 0 / 0  
 Orders H&S: 0 RECL 0  
 Stop Work: 0

<b>Name of Property</b>	<b>Mount Polley Mine</b>	<b>Permit No.</b>
<b>Location</b>	<b>Likely</b>	
<b>Owner, Manager</b>	<b>G. Wight</b>	
<b>Company</b>	<b>Mount Polley Mining Corporation</b>	
<b>Address</b>	<b>PO Box 12 Likely BC V0L 1N0</b>	
<b>Persons Contacted</b>	<b>Greg Smythe</b>	
<b>Type of Mining</b>	<b>METAL MINE - SURFACE</b>	
<b>Date of Inspection</b>	<b>5/9/2002</b>	
<b>Copies To</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**

**1.0 Introduction:**

An inspection of the Mount Polley mine site was conducted on the above date in the company of Greg Smythe, Environmental Coordinator.

The purpose of the inspection was to observe the effectiveness of the water diversion works during the peak of the spring run-off and to tour the mine site.

The primary function of the diversion and pumping systems installed was to direct natural run-off and seepage away from the Tailings Storage Facility (TSF) and discharge into the environment, while collecting any mine seepage, or run-off from the mine site, the Rock Disposal Sites and Mill Site Sump and either direct the flow either directly into the Cariboo Pit, or into the TSF and then pump into the Cariboo Pit preventing any discharge of these flows into the environment.

**MANAGERS RESPONSE OF ACTION TAKEN**

**DO NOT MODIFY THIS TEXT**

## 2.0 Summary of Inspection:

### Collection, Diversion and Pumping Activities:

#### Tailings Storage Facility (TSF):

- began pumping the TSF to the Cariboo Pit on 3 May, 2002, Photo 8,
- the TSF is being pumped at a rate of 5,000 usg/m and will continue until 18 May, 2002,
- the target is to pump 400,000 cubic metres from the TSF into the Cariboo Pit,
- the TSF had been pumped down 9cm in six days and will be pumped down to between 941.00 metres and 941.10 metres,
- the embankment height is 942.50 metres and the draw-down will allow for a 1 metre wave run-up and 0.27 metres for a probable maximum precipitation event.

#### Mill Site Sump (MSS):

- collects all water from the mill, office area and parking lot,
- pumped into the tailings line when the sump is over capacity and the flow is directed into the TSF through the knife gate valve, Photo 9,
- the MSS has been pumped out several times this year.
- future plans include constructing a pipe to pump the MSS directly into the Cariboo Pit directly.

#### Southeast Sediment Pond (SESP):

- the SESP directs all run-off and drainage diverted from the area between the south end of the East RDS and the SESP and directs it through a 25 cm pipe into the tailings line at the T2 Drop Box,
- the flow is then discharged away from the TSF through the knife gate valve and where it is discharged and directed into the PESCP and finally discharged into the environment, Photo 10,

#### East Rock Disposal Site Sump (ERDSS):

- a collector directs all run-off and seepage from the East Rock Disposal Site into the ERDSS, where it is pumped into the Cariboo Pit,
- the sump is pumped at a rate of 500 usg/m,
- when run-off and seepage exceeds the rate of pumping from the sump, the flow is directed through the Southeast

Sediment Pond and into the tailings line, where it is directed into the TSF by the knife gate valve, Photo 9,

-when this occurs, any fresh water being diverted into the SESP would also be diverted into the TSF with the ERDSS flow and subsequently be pumped into the Cariboo Pit.

**Tailings Access Road (TAR):**

-the natural drainage from the mill site to the T2 Drop Box is from east and from the T2 Drop Box to the TSF is from the west,

-the drainages are separated by a creek flowing under the TAR at the T2 Drop Box,

-an intercept along the east side of the TAR diverts all run-off from the mill site to the T2 Drop Box into a small creek adjacent the T2 Drop Box,

-run-off and seepage from the T2 Drop Box to the quarry is directed to the east under the TAR by numerous culverts,

-run-off from the biosolids is directed under the TAR and discharged directly into the TSF, Photo 9,

-an intercept on the west side of the TAR collects seepage and run-off from the quarry area, directs it under the TAR and into the PESCP and discharged,

-an intercept diverts all run-off and seepage from above the TAR from the quarry south and discharges under the Gavin Lake Road and into a swampy area on the western corner of the TSF, Photo 12,

-armoring was placed in the intercept along the TAR on the west side of the TSF wherever the slope exceeded 0.5%, Photos 11 and 12.

**Main Embankment Seepage Collection Pond (MESCP):**

-all flow from the foundation and toe drains are directed into the MESCP and discharged,

-this location has a discharge permit and is sampled once per month,

-natural flow from the borrow pit area is intercepted and diverted to the south of the TAR and discharged.

**Bell Pit:**

-the pit was mined down approximately nine benches,

-there is a zone of elevated pyrite which was identified as having a potential of being PAG,

**-for the purposes of sampling the rock type, a 10 metre buffer has been identified around the zone of elevated pyrite,**

**-as a conservative measure, the buffer zone was sampled identically to the zone of elevated pyrite, which involved sampling every sixth blast hole which would equal one sample,**

**-the areas outside the buffer consisted of sampling each sixth blast hole within a blast pattern and making a single composite,**

**-waste rock from the buffer and elevated pyrite area was dumped into the Cariboo Pit, Photo 6,**

**-waste rock outside of the buffer was placed in the North Rock Disposal Site (NRDS), Photo 4,**

**-North Dump Creek below the NRDS is monitored at water quality monitoring station 4.**

#### **Springer Pit:**

**-90,000 tonnes were mined in three days of production, Photo 3,**

**- due the closeness, the waste rock was dumped into the Cariboo Pit, Photo 6,**

#### **Cariboo Pit:**

**-tailings water from the TSF was actively being pumped into the pit, Photos 5 and 6,**

**-at the time of the inspection there was approximate 45 to 50 metres in depth of water to the bottom of the pit,**

**-a spillway is eventually to be designed for the southwest corner of the pit.**