



Mount Polley Mining Corporation

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A Pacific tree frog safely relocated from the Hazeltine Creek work area, August 2017.



Two Sandhill cranes and a black bear crossing the Bootjack FSR, August 2017



Sucker in lower Edney Creek, June 2017

Community Update

Introduction

Welcome to Mount Polley Mining Corporation’s (MPMC) August 2017 Community Update newsletter providing local communities with information about what is happening at the mine.

Due to the current wildfire situation in the Cariboo, the site tour originally scheduled for July 13, 2017 was canceled. MPMC has rescheduled the tour and the visit will highlight the ongoing Hazeltine Creek Rehabilitation Project. If you would like to participate in the site tour, please send an email to Vanessa Bremner (Receptionist) at vbremner@mountpolley.com or Colleen Hughes (Environmental Supervisor) at chughes@mountpolley.com with your name, address and phone number, and **MP Site Tour** in the subject line of the email. Please note that seating is limited and registration is on a first come first served basis. The tour is also restricted to only those above the age of 16. Additional information will be sent out upon registration.

Also, if you have any ideas for information that you would like to have included in the upcoming Community Updates, please do not hesitate to send an email to the addresses above.



Operations at MPMC

Operations at MPMC were limited as of July 7, 2017 as the wildfires in the Cariboo region impacted many of MPMC’s work force that reside in Williams Lake and the surrounding areas of Big Lake, 150 Mile House, and Soda Creek.

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MPMC Personnel Profile— Gabriel Holmes

Welcome to the first MPMC Personnel Profile. This section will feature an employee of MPMC and focus on their contribution to the company and community.

The first employee to be featured is Gabriel Holmes. Gabe started at MPMC as a student in 1997 then worked onsite as a contractor in 2004/2005. In 2012, he became a full-time employee in the Environmental Department.



Gabe has a background in silviculture and forestry that has proved invaluable in reclamation projects pre and post Tailings Storage Facility (TSF) failure. He has been integral to the reclamation of inactive rock disposal sites and the Hazeltine Creek terrestrial rehabilitation project due to his knowledge of native plants and survey experience. He is a very valued team member (often jovially referred to as 'Sasquatch'), and is always prepared to assist in any type of sampling and/or monitoring event with a smile.

Mr. Holmes is a father, BC local and has resided in the community of Likely for the majority of his life. He is an ardent supporter of community values and is a director of the Likely Community Forest Society board, Likely-Xatsull Community Forest Ltd. board and with the Likely and District Chamber of Commerce.

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During the first week of the wildfires, MPMC provided water totes and a water truck to the Big Lake fire center, and dust masks for the community of Likely and firefighters, until the evacuation order was issued.

During the evacuation order, six dedicated employees remained on site for fire watch and to meet compliance requirements. Employees returned to work on July 31 and MPMC officially resumed full operations on August 2, 2017.

Discharge from the water treatment plant (WTP) ceased on July 10, 2017, as MPMC was unable to ship samples within the recommended hold times to the analytical lab due to road closures. As the wildfire threat continues in and around the Cariboo region, the WTP will not discharge until the situation stabilizes and samples can arrive at the lab within the appropriate time.

During the alert and order period, MPMC Environmental Department staff continued to adhere to the requirements of all government licenses and permits.



Community Engagement

MPMC continues to promote community outreach and engagement with the local residents of Likely and its surrounding areas, as well as the First Nations.

MPMC and Imperial Metals recently sponsored the Plato Island Resort and Marina Fish Derby. This event took place on Quesnel Lake from June 9-11, 2017. The first place Lake Trout weighed 12.52 lbs and took home the winning prize of \$1,500 cash with second and third place award \$700 and \$300 respectively.

In addition to sponsoring local events, MPMC donated boom logs to Plato Island Resort following the big windstorm in May. The boom logs will help rebuild their pier that was damaged during the storm.

In June, MPMC met with the Public Liaison Committee (PLC) and the elders from Soda Creek and Williams Lake Indian Bands to discuss the ongoing remediation activities in Hazeltine Creek and site monitoring updates.

As mentioned on page 1, the MPMC site tour has been rescheduled and will showcase the ongoing rehabilitation project of Hazeltine Creek to members of the public.



Chalcopyrite (CuFeS_2)

Bornite (Cu_5FeS_4)

Monzonite and
monzodiorite

Geology of the Mount Polley Deposit

The Mount Polley deposit is an alkalic porphyry copper-gold deposit hosted within brecciated plagioclase porphyry. The intrusive complex is about five to six kilometres long and three kilometres wide, lying between Polley and Bootjack Lakes. The intrusions are typically monzodiorite, but range from diorite (oldest) to monzonite (youngest). Copper mineralization is concentrated in zones of strong hydrothermal fracturing or brecciation. Although mineralization varies among the different zones, the dominant copper sulphide mineral is disseminated chalcopyrite. Minor chalcopyrite also occurs in fractures and veinlets, and minor bornite and trace quantities of covellite, chalcocite, and digenite also occur. Copper oxides and carbonates are also present (such as chrysocolla, azurite and malachite), and are the dominant copper minerals in portions of the Springer and Cariboo Pits. Both gold and silver are closely correlated with chalcopyrite, although there are a few gold-only zones with the gold possibly associated with pyrite or epidote.

Definitions of rock names :

Monzodiorite: a coarse-grained igneous rock consisting of essential plagioclase feldspar, orthoclase feldspar, hornblende, and biotite, with or without pyroxene.

Diorite: an intermediate, coarse-grained igneous rock with up to 10% quartz. Plagioclase feldspars are of the oligoclase-andesine varieties; and ferromagnesian minerals, e.g. pyroxenes or hornblende, are present.

Monzonite: a coarse-grained igneous rock consisting of essential plagioclase feldspar, orthoclase feldspar, pyroxene and biotite. The plagioclase feldspar and the orthoclase feldspar are in roughly equal proportions. (aka syenodiorite)

Note, the majority (90%) of the minerals in the Mount Polley Mine tailings are plagioclase feldspar, orthoclase feldspar, biotite, and pyroxene, the main rock-forming minerals in the host monzonite and monzodiorite, plus magnetite, epidote and calcite, related to the hydrothermal brecciation and alteration.

References:

- July 2009 TAR, Mount Polley Mine Technical Assessment Report for a Proposed Discharge of Mine Effluent
- A Dictionary of Earth Sciences, Encyclopædia.com

Reclamation Update



Upper Hazeltine Creek fish habitat project Reach 1, August 2017.

Hazeltine Creek Fish Habitat

Fish habitat construction project in the upper areas (Reaches 1 and 2) in the Hazeltine Creek corridor is ongoing. MPMC Environmental Department crews are onsite daily to monitor the progress and provide sediment and erosion control if necessary. This project includes the construction of approximately 1.4 km of fish habitat in Upper Hazeltine Creek and is anticipated to be completed in late fall 2017. This is an extension of the 1 km fish habitat completed in 2016.

Amphibian Salvage

Any ponds located near the creek construction project containing amphibians have been excluded by fencing and deemed a no-work zone. Any amphibians located in the work area are documented and moved (with proper handling protocols and in accordance with the *Wildlife Act*) to a release site. Between the end of April and middle of August, 464 amphibians have been relocated. Amphibian salvaging will continue until all ponds have been cleared as amphibian free.

Planting

Spring planting of native shrubs (black twinberry, prickly rose, and alder) in upper and lower Hazeltine Creek was completed in June 2017. Fall planting of the same species will commence in September, weather permitting. To date, over 200,000 shrubs have been planted in the Hazeltine Creek corridor.

Fish quotas in local surrounding lakes

Quesnel Lake:

In November 2016, the Ministry of Forest, Lands and Natural Resource Operations (FLNRO) raised the daily quota of lake trout from 3 (any size) to 5 (any size). This decision resulted from data collected over the last four years suggesting that the exploitation of lake trout is low and that an increased harvest is sustainable.

The increase of any daily fish quota in a habitat suggests that the population of the species is healthy. This change is beneficial to the local angling community, especially during fish derbies like the one at Plato Island Resort (see page 2).

Note that the quotas for rainbow trout have not changed.

For more information, please visit: <http://apps.nrs.gov.bc.ca/pub/ahte/angling/quesnel-lake-lake-trout-daily-quota>

Bootjack, Polley and Morehead Lakes:

No changes have been approved by FLNRO. The daily trout quota remains at 8.

For more information, please visit: http://www.env.gov.bc.ca/fw/fish/regulations/docs/1719/fishing_synopsis_2017-19_region5.pdf

Mount Polley Mining Corporation wishes everyone well during this difficult wildfire season.

Please visit the Imperial Metals website for more information about MPMC's reports and ongoing projects: <https://www.imperialmetals.com/our-operations-and-projects/operations/mount-polley-mine/mount-polley-updates/>