



# Mount Polley Mining Corporation

an Imperial Metals company

Box 12 • Likely, BC V0L 1N0 • T 250.790.2215 • F 250.790.2613

**October 15<sup>th</sup>, 2015**

Ministry of Environment  
Mining Operations Environmental Protection  
2080 Labieux Rd.  
Nanaimo, BC  
V9T 6J9

## **WEEKLY UPDATE REPORT – OCTOBER 7<sup>TH</sup> – 13<sup>TH</sup>, 2015**

### **Government, First Nations and Stakeholder Engagement**

<b>Publications and Website Updates</b>	<p>Mount Polley will continue to present interpreted environmental monitoring results and updates on remediation work on the <a href="#">Mount Polley Updates</a> page of the Imperial Metals website (<a href="http://www.imperialmetals.com">www.imperialmetals.com</a>). Last week's update report to the BC Ministry of Environment (MoE) was posted this week.</p> <p>A reminder that the Likely-Horsefly Forest Service Road (Ditch Road) will be closed from October 31<sup>st</sup> – November 14<sup>th</sup>. This information was previously sent out to Mount Polley's email list of community contacts and to the MoE Environmental Working Group.</p>
<b>Engagement Activities and Communications with Regulators</b>	<p>Activities relating to government, First Nations, and stakeholder communication and engagement this week included:</p> <ul style="list-style-type: none"><li>• The weekly MoE update call on October 7<sup>th</sup>.</li><li>• A Ministry of Energy and Mines site tour and inspection on October 7<sup>th</sup>.</li></ul>

## Rehabilitation Work

<p><b>Silt Curtain</b></p>	<p>The turbidity barrier (silt curtain) installed in Quesnel Lake near the outlet of the constructed Edney Creek channel is in good condition. MPMC has made arrangements with a contractor to have the turbidity barrier removed for winter, following cleaning out of the Hazeltine Creek sedimentation ponds and installation of the water discharge infrastructure (which requires diversion of Hazeltine Creek into Edney Creek).</p>
<p><b>Monitoring</b></p>	<p>MPMC staff members conduct environmental monitoring when work in the Hazeltine Creek riparian zone is occurring.</p>
<p><b>Hazeltine Creek Rehabilitation</b></p>	<p>Hazeltine Creek rehabilitation work carried out this week included:</p> <ul style="list-style-type: none"> <li>• Removal of tailings adjacent to Hazeltine Creek and re-sloping on the east side of the floodplain in Reaches 1 and 2 (between Polley Lake and the Gavin Lake Forest Service Road bridge) continued. Some re-sloping is also ongoing on the west side of Hazeltine Creek, near the proposed water discharge pipeline outlet.</li> <li>• The first phase of dead tree removal in areas adjacent to Hazeltine Creek continued in Reaches 1 and 2 on the east side of the creek.</li> <li>• Stripping of areas adjacent to the Horsefly-Likely Forest Service Road (Ditch Road) bridge in preparation for bridge replacement continued.</li> <li>• The fish salvage of the sedimentation ponds was completed on October 7<sup>th</sup>, with representatives from DFO and the Conservation Service on site, to remove fish that had evaded the fish exclusion barriers and travelled into the sedimentation ponds.</li> <li>• Hazeltine Creek continued to be diverted into Edney Creek and the sedimentation ponds were pumped down to allow for cleaning out of the sedimentation ponds and installation of discharge infrastructure.</li> <li>• Cleaning out of settled material in the upper sedimentation pond commenced.</li> <li>• New fish fences were installed at the outlet of Polley Lake, upstream of the weir structure.</li> <li>• A crew from a local reforestation contractor and a Xatsúll crew commenced the fall revegetation program on October 13<sup>th</sup>. The crews will work on planting live willow wattles and native deciduous trees and shrubs on the Hazeltine Creek floodplains.</li> </ul>

## Water Management

<p><b>Polley Lake</b></p>	<p>Polley Lake water elevation = 922.19m (October 14<sup>th</sup>) The Polley Lake weir valve remained closed this week to accommodate downstream works, as described in the Rehabilitation Work section.</p>
<p><b>Water Management</b></p>	<p>No changes to the site water management system occurred this week. No releases of water to the environment occurred this week. Please refer to the <a href="#">May 28<sup>th</sup>, 2015 weekly report</a> for an overview map of the TSF water management system.</p>
<p><b>Springer Pit</b></p>	<p>The total volume of tailings deposited in the Springer Pit as of October 14<sup>th</sup> is 702,756 tonnes (509,243 m<sup>3</sup> including water retained in tailings).</p> <p>Water Elevations (October 14<sup>th</sup>):</p> <ul style="list-style-type: none"> <li>• Springer Pit = 1021.12m (+0.12m from last week)</li> <li>• Groundwater well GW12-2a = 1013.72m (+0.07m from last week)</li> <li>• Groundwater well GW12-2b = 1013.90m (+0.10m from last week)</li> <li>• Groundwater well GW15-1a = 1020.56m (+0.28m from last week)</li> <li>• Groundwater well GW15-1b = 1020.50m (+0.28m from last week)</li> <li>• Groundwater well GW15-2a = 1022.42m (+0.11m from last week)</li> <li>• Groundwater well GW15-2b = 1022.88m (+0.16m from last week)</li> </ul> <p>A map of the groundwater well locations is included as Figure 1 of the <a href="#">July 23<sup>rd</sup> weekly report</a>. Note that the suffix “a” indicates the deep well in the pair, and the suffix “b” indicates the shallow well in the pair.</p> <p>Monthly water quality results for parameters of interest from the Springer Pit supernatant and adjacent groundwater wells will be included in this report as they become available. The Springer Pit supernatant was sampled this week on October 13<sup>th</sup>.</p>
<p><b>Discharge System</b></p>	<p>Work related to installation of infrastructure for the proposed short-term water discharge plan was carried out this week including:</p> <ul style="list-style-type: none"> <li>• Armouring of the West Ditch to reduce entrainment of suspended solids in water that will be routed to the water treatment plant (WTP) continued.</li> <li>• Work installing components of the WTP that have arrived on site continued.</li> <li>• Completion of the discharge pipe grade from the WTP to Hazeltine Creek.</li> <li>• Delivery of materials for installation of the intake structure for the Quesnel Lake discharge pipelines (at the end of the upper sedimentation pond).</li> <li>• Fusing of the diffusers for the Quesnel Lake discharge pipelines.</li> <li>• Preparations for the installation of the Quesnel Lake discharge pipelines, which is scheduled to be carried out by a contractor within the next week.</li> </ul>

## Environmental Monitoring Program

<b>Water Quality Monitoring Program</b>	The current water quality monitoring program is outlined in the table below. All sampling was completed as scheduled this week.			
	<b>Area</b>	<b>Monitoring Type</b>	<b>Frequency</b>	<b>Stations</b>
	Polley Lake	Samples	Monthly	P1, P2
		Profiles	Bi-monthly	P1, P2
	Hazeltine Creek	Samples	Weekly	HAC-01c
			Monthly	HAC-05, HAC-08, HAC-10
	Edney Creek	Samples	Monthly	EDC-01
	Quesnel Lake	Profiles	Weekly	QUL-54a, QUL-55a, QUL-56a
		Profiles	Bi-monthly	QUL-21a, QUL-18, QUL-66a, QUL-2a, QUL-79
		Profiles	Monthly	QUL-40a, QUL-120a
		Samples	Weekly	QUL-55
		Samples	Monthly	QUL-2a, QUL-18, QUL-40a, QUL-120a
	Quesnel River	Samples	Bi-monthly	QUR-1
		Field Parameters	Continuous	QUR-1
Please refer to previous weekly reports, such as the <a href="#">May 7<sup>th</sup>, 2015</a> report, for a map of these sampling locations.				
<b>Water Quality Monitoring Results</b>	Figure 1 is a time series graph of field turbidity readings in lower Hazeltine Creek upstream of the sedimentation ponds and downstream of the ponds, at the outflow into Quesnel Lake. The graph shows data since construction and armouring of the new Hazeltine Creek channel was completed in mid-May.			
	Figure 2 shows a turbidity and temperature profile from this week at site QUL-66a, located in the deep centerline of the Quesnel Lake West Basin in front of the Hazeltine Creek outlet.			
	Figure 3 shows a time series graph of turbidity readings at site QUR-1 in the upper Quesnel River. Turbidity data are from laboratory analysis completed by ALS Environmental. This chart will be updated every second week, as per the monitoring frequency of this station in the sampling program.			

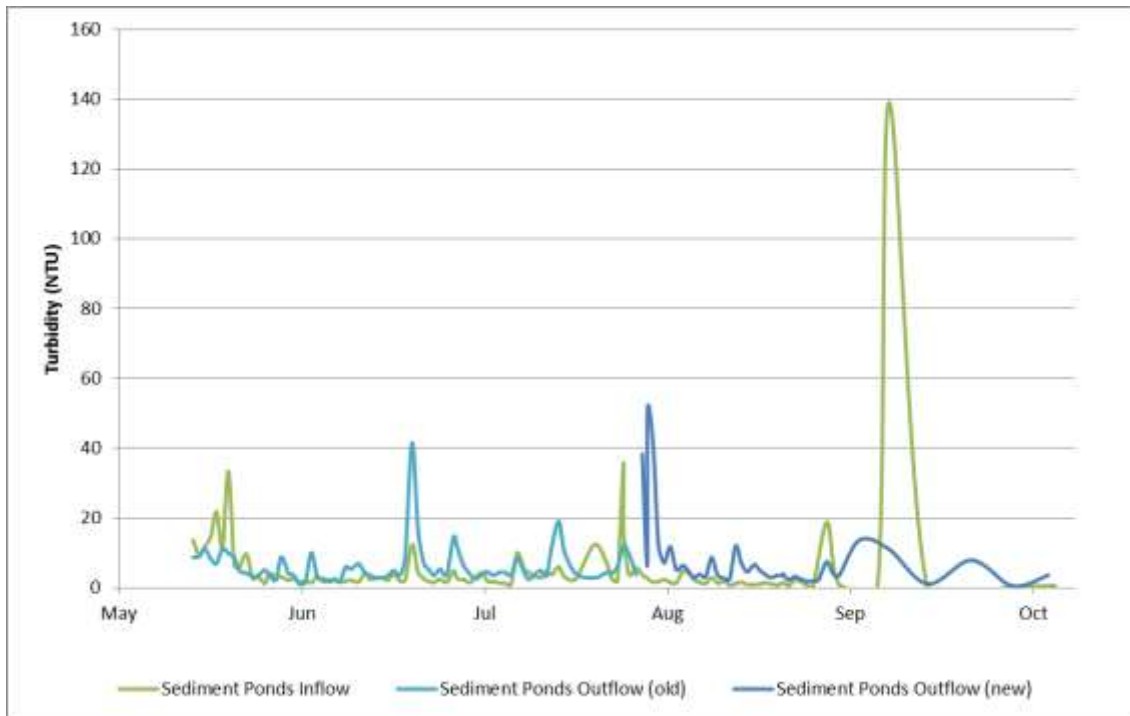


Figure 1. Time series graph for May 13<sup>th</sup> – October 6<sup>th</sup> showing turbidity levels at monitoring locations in lower Hazeltine Creek

Note: this graph will be updated to reflect diversion of Hazeltine Creek into Edney Creek next week.

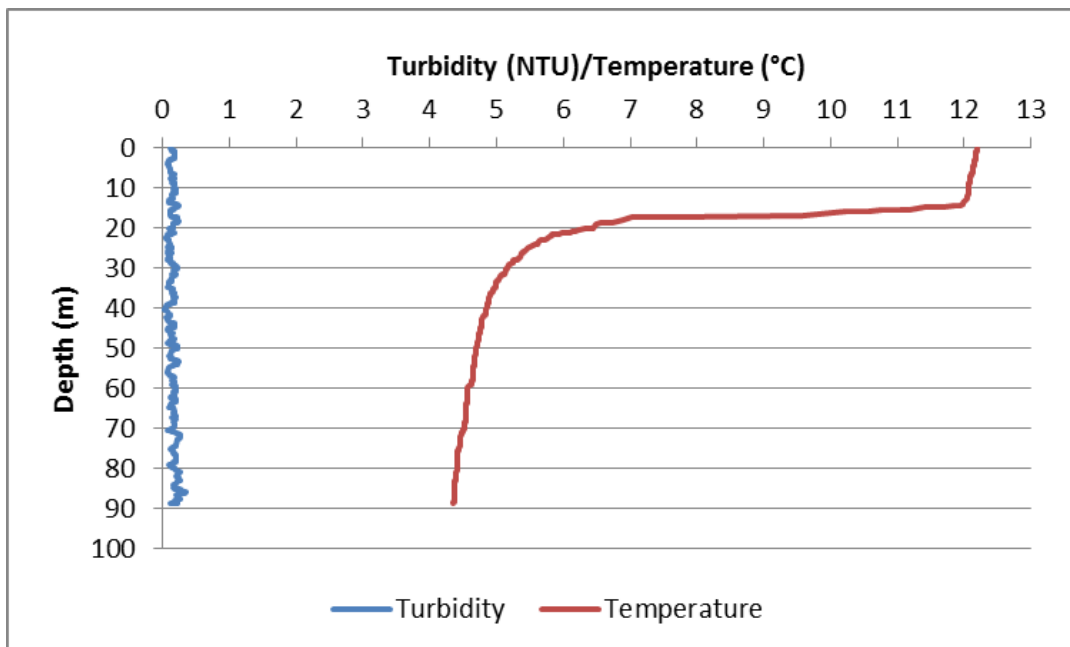


Figure 2. Turbidity and temperature profiles at station QUL-66a (shallow site at the mouth of the new outflow channel from the Hazeltine Creek lower sedimentation pond) on October 5<sup>th</sup>

Note: Weekly monitoring at sites QUL-554a, 55a, and 56a was conducted on October 14<sup>th</sup>, and field results will be included in the next weekly report.

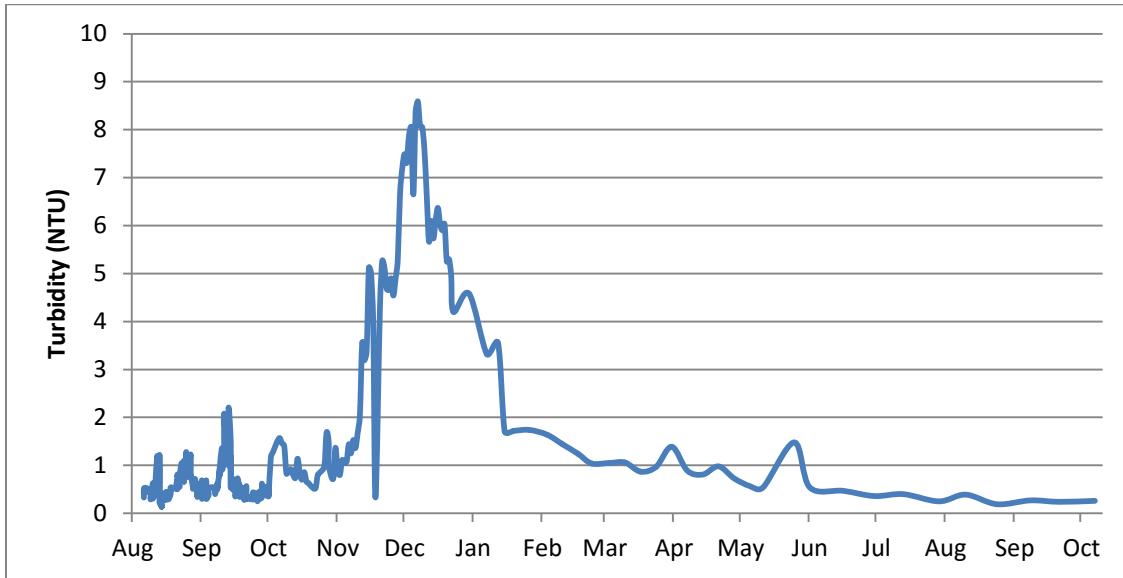


Figure 3. Turbidity time series at station QUR-1 (August 6<sup>th</sup>, 2014 – October 7<sup>th</sup>, 2015)