



# Mount Polley Mining Corporation

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Ministry of Environment  
 Mining Operations Environmental Protection  
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## WEEKLY POST-TSF BREACH REPORT – JUNE 24 - 30, 2015

### Water Management

<b>Polley Lake Dewatering</b>	Polley Lake water elevation = 922.52m (June 30 <sup>th</sup> ) The Polley Lake weir valve remained open this week to allow ~0.2 m <sup>3</sup> /s of outflow from Polley Lake into Hazeltine Creek.
<b>TSF Water Management</b>	All water from the Tailings Storage Facility (TSF) water collection system continues to be transferred to the Springer Pit via the Central Collection Sump. No releases of water to the environment occurred this week. Please refer to the May 28 <sup>th</sup> , 2015 weekly report for an overview map of the TSF water management system.

### Government, First Nations and Stakeholder Engagement

<b>Publications and Website Updates</b>	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> ). <ul style="list-style-type: none"> <li>• A <a href="#">Hazeltine Creek Rehabilitation Update Video</a> was posted on June 29<sup>th</sup>.</li> <li>• A reminder that the Post-Event Environmental Impact Assessment Report <a href="#">Key Findings summary</a> and <a href="#">technical appendices</a> were posted on June 18<sup>th</sup>.</li> </ul>
<b>Engagement Activities and Communications with Regulators</b>	Activities relating to government, First Nations, and stakeholder communication and engagement this week included: <ul style="list-style-type: none"> <li>• The weekly Ministry of Environment (MoE) update call on June 24<sup>th</sup>.</li> <li>• Participation in the MoE Williams Lake community meeting on June 24<sup>th</sup>.</li> <li>• Participation in the MoE Quesnel community meeting on June 25<sup>th</sup>.</li> <li>• A tour with MEM Inspector of Mines on June 24<sup>th</sup>.</li> <li>• Participation in the MoE Environmental Working Group meeting on June 26<sup>th</sup>.</li> </ul>

## Sediment and Erosion Control Measures

<b>Silt Curtain</b>	The turbidity barrier (silt curtain) installed in Quesnel Lake near the outlet of the constructed Edney (Hazeltine) Creek channel, downstream from the Lower Hazeltine Creek sedimentation ponds, is in good condition.
<b>Monitoring</b>	Environmental monitors are monitoring ongoing sediment and erosion control and rehabilitation work. This monitoring is being conducted by Mount Polley Mining Corporation (MPMC) staff.
<b>Hazeltine Creek Rehabilitation</b>	<p>This week, re-contouring and application of woody debris and organics continued on the disturbed areas between the Hazeltine Creek floodplain and the forest edge for erosion control and reclamation purposes. Work was carried out on both sides of Hazeltine Creek between the 3,000m and 4,000m marks of the channel (Polley Lake = 0m). This work adjoins with the reclamation work done adjacent to the Gavin Lake Road bridge. The re-contouring completed this week involved construction of swales and backfilling of old sumps to manage runoff.</p> <p>Additional ongoing work associated with the rehabilitation project included:</p> <ul style="list-style-type: none"> <li>• Cleaning and maintenance of the fish exclusion fences.</li> <li>• Monitoring of restricted access areas and fixing any vandalized infrastructure.</li> </ul>

## TSF Construction

<b>Construction Update</b>	The amendment to permit M-200 approving repair of the TSF breach to manage 2015 freshet was received from the Ministry of Mines on December 17 <sup>th</sup> , 2014. Buttress placement for the Perimeter Embankment is ongoing; all other work associated with the 2015 Freshet Management Embankment construction is complete.
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## Water Quality Monitoring Program

<b>Water Quality Monitoring Program</b>	The current water quality monitoring program is outlined in the table below. No changes to the monitoring program occurred this week. All monitoring was completed for the month of June, except one profile at QUL-21a. Supplementary casts were completed at sites QUL-2, QUL2a, QUL-18, QUL-40, QUL-66a, and QUL-79, as well as at some of the DFO datalogger moorings.			
	<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-01b
			Monthly	HAC-05, HAC-08, HAC-10
	Edney Creek	Samples	Weekly	EDC-02
			Monthly	EDC-01
	Quesnel Lake	Profiles	Weekly	QUL-54, QUL-55, QUL-56
		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	
Please refer to previous weekly reports, such as the May 7 <sup>th</sup> , 2015 report, for a map of these sampling locations.				
<b>Continuous Monitoring</b>	The monitoring program also includes a sonde (datalogger) that is deployed in the Quesnel River at monitoring station QUR-1. The sonde measures field parameters (turbidity, pH, specific conductance, dissolved oxygen, and temperature) every 15 minutes. A second sonde, which measures the same parameters at the same frequency, is deployed at the outlet of the Lower Hazeltine Creek sedimentation ponds.			
<b>Results</b>	<p>Figure 1 shows a time series graph for this week of daily field turbidity readings in Lower Hazeltine Creek upstream and downstream of the sedimentation ponds (stations HAC-09 and HAC-01b, respectively), and in Edney Creek downstream of the confluence with Hazeltine Creek (station EDC-02). Figure 2 shows turbidity levels at these sites over a longer time period to provide context for this week's data. Note that heavy rainfall occurred on the night of June 26<sup>th</sup>.</p> <p>Figure 3 shows a turbidity and temperature profile from June 29<sup>th</sup> at site QUL-55 (a near field site at the mouth of Hazeltine Creek).</p> <p>Figure 4 shows a time series graph of turbidity at site QUR-1. 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 site in the sampling program.</p>			

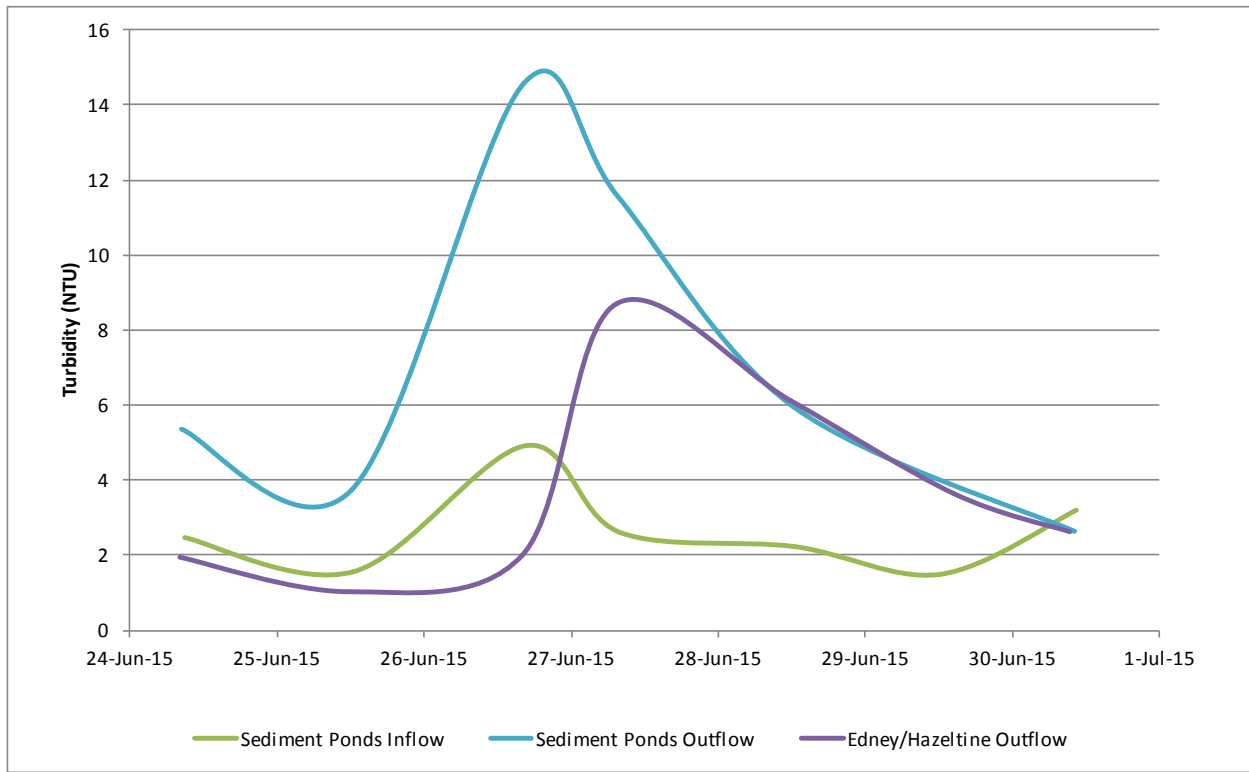


Figure 1. Time series graph for June 24<sup>th</sup> – June 30<sup>th</sup> showing turbidity levels at monitoring locations in Hazeltine and Edney Creeks

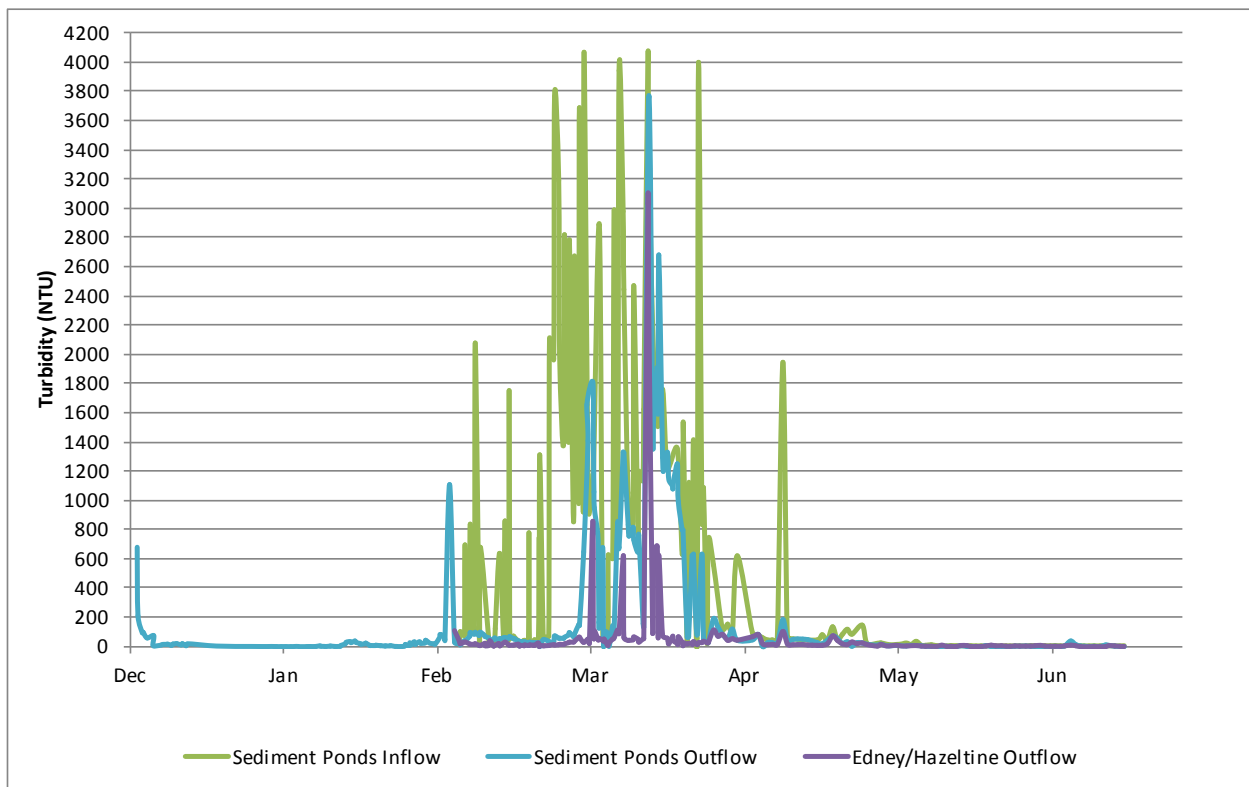


Figure 2. Time series graph for December 12<sup>th</sup>, 2014 – June 30<sup>th</sup>, 2015 showing turbidity levels at monitoring locations in Hazeltine Creek

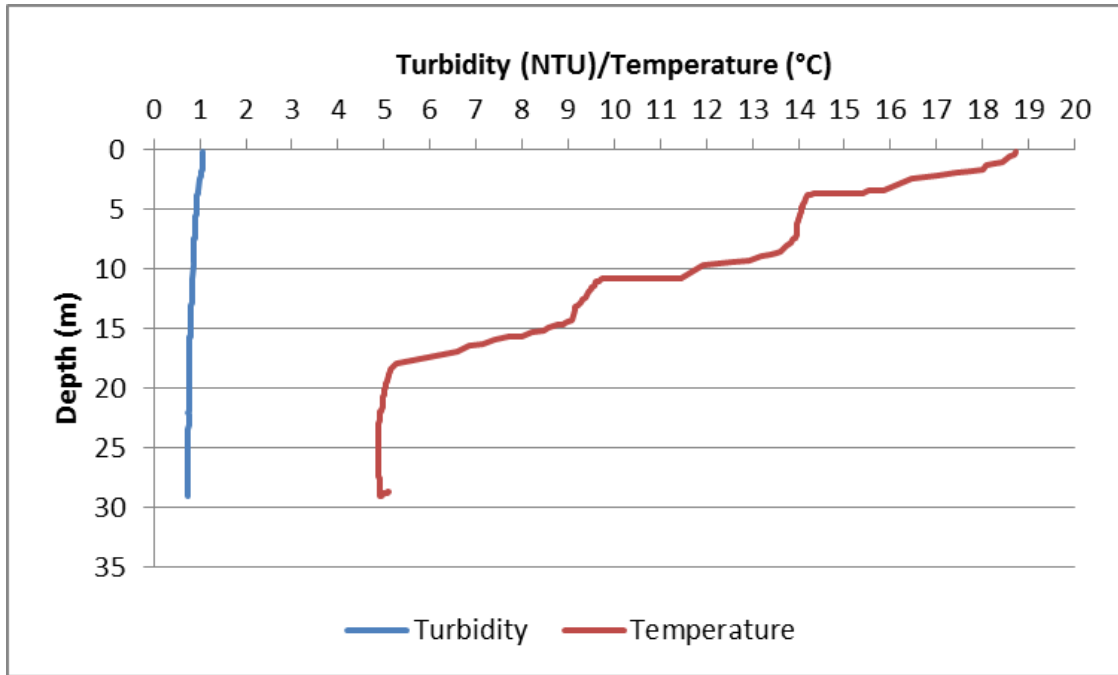


Figure 3. Turbidity and temperature profiles at station QUL-55 on June 29<sup>th</sup>

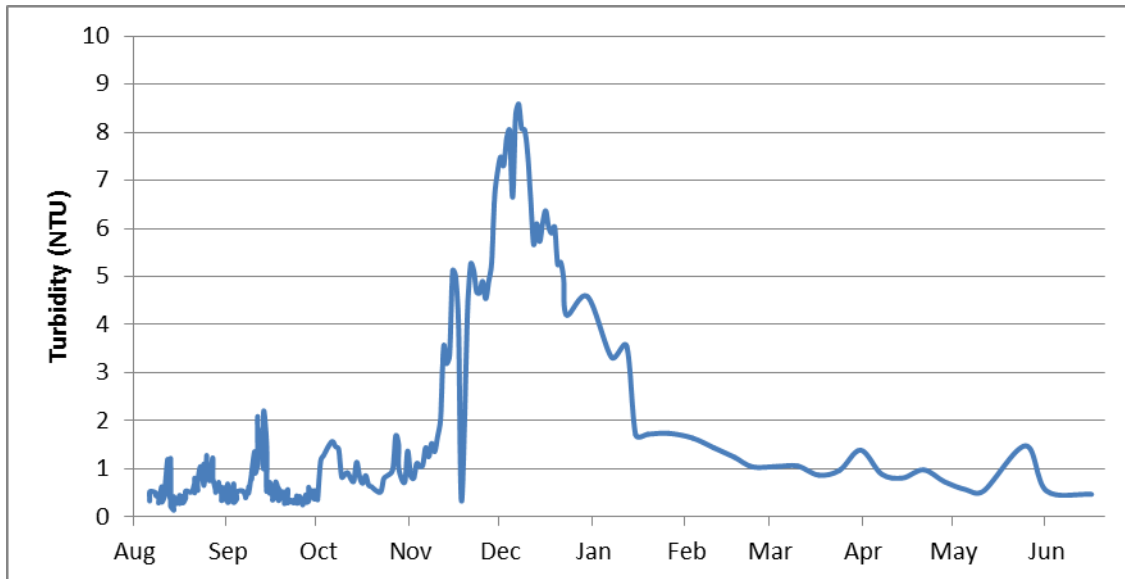


Figure 4. Turbidity time series at station QUR-1 (August 6<sup>th</sup>, 2014 – June 16<sup>th</sup>, 2015)