



Mount Polley Mining Corporation

an Imperial Metals company

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

May 7, 2015

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

WEEKLY POST-TSF BREACH REPORT – WEEK OF APRIL 29 – MAY 5, 2015

Water Management

Polley Lake Dewatering	<p>Polley Lake water elevation = 922.70 m (May 5th)</p> <p>The weir valve was closed to accommodate removal of sediment from the Lower Hazeltine Creek sedimentation ponds until the afternoon of May 2nd, when the valve was opened to allow outflow from Polley Lake into Hazeltine Creek.</p>
TSF Water Management	<p>All water from the 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 previous weekly reports, such as the December 31st, 2014 report, for an overview map of the water management system.</p>

Government, First Nations and Stakeholder Engagement

Publications	<p>Mount Polley will continue to present interpreted environmental monitoring results and updates on remediation work on the Mount Polley Updates page of the Imperial Metals website (www.imperialmetals.com). No updates were posted this week.</p>
Engagement Activities and Communications with Regulators	<p>Activities relating to government, First Nations, and stakeholder communication and engagement this week included:</p> <ul style="list-style-type: none"> • The weekly Ministry of Environment (MoE) update call on April 29th. • Scheduling of a Community Open House at the Likely Hall for 7:00pm on Wednesday May 13th.

Sediment and Erosion Control Measures

Silt Curtain	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.
General	<p>Environmental monitors are monitoring sediment and erosion control and rehabilitation work in Upper, Middle, and Lower Hazeltine Creek. This monitoring is being conducted by MPMC staff.</p> <p>3,040 tonnes of angular rock were hauled to the Hazeltine Creek area this week for use in rehabilitation work. 10,724 tonnes of material were excavated and moved within Hazeltine Creek during the channel re-shaping process.</p> <p>Rock liner material being used is low sulphur rock from the Cariboo Pit and a sampling program is in place to verify the chemistry of the rock. A sampling program to verify chemistry of creek subgrade material after tailings have been removed is also in place.</p>
Upper Hazeltine Creek	No work was completed in Reaches 1 and 2 this week. Channel construction and floodplain grading in these reaches is complete.
Middle Hazeltine Creek	<p>In Reach 3 (downstream of the Gavin Lake Road bridge), 3,100m of channel has been constructed and armoured, and grading of the adjacent floodplain is complete. Hazeltine Creek is flowing in the reconstructed channel all the way from Polley Lake to this point (5,800m total).</p> <p>Grading of the floodplain and channel construction in the remaining section of channel (6,000m to 6,600m) commenced this week. Note that between 5,800m and 6,000m of the creek is a short rock canyon in which channel re-construction will not take place.</p>
Lower Hazeltine and Edney Creeks	<p>Removal of accumulated material from the temporarily dewatered upper sedimentation pond in Lower Hazeltine Creek was completed on May 1st, and the pond was allowed to refill.</p> <p>Spreading of woodchips on areas ready for reclamation was conducted this weeks. A crew from the Soda Creek First Nation and a crew from a local silviculture contractor continued to plant live willow stakes and wattles and seed native red fescue species this week. A shipment of native deciduous trees and shrubs arrived this week for planting in lower Hazeltine Creek.</p>

Water Quality Monitoring Program

Water Quality Monitoring Sites	The current water quality monitoring program is outlined in the table below. Profile frequency at stations QUL-40a and QUL-120a has being reduced to monthly as approved by the MoE. All monitoring was completed as scheduled this week.			
	Area	Monitoring Type	Frequency	Stations
	Polley Lake	Samples	Monthly	P1, P2
		Profiles	Bi-monthly	P1, P2
	Hazeltine Creek	Samples	Weekly	HAC-01b, HAC-08, HAC-05, HAC-10
	Edney Creek	Samples	Weekly	EDC-01, EDC-02
	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	Weekly	QUR-1	
Attachment 1 to this report provides a map of these sampling locations.				
Continuous Monitoring	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.			
Results	<p>Figure 1 shows a time series graph for this week of daily field turbidity readings for Upper Hazeltine Creek (at the Gavin Lake bridge, HAC-05), Lower Hazeltine Creek (upstream and downstream of the sedimentation ponds), and Edney Creek (upstream and downstream of the confluence with Hazeltine Creek). Note that water was being pumped around the upper sedimentation pond in Lower Hazeltine Creek so that accumulated material could be removed until May 2nd. Figure 2 shows turbidity at these same sites over a longer period to provide context for this week's data.</p> <p>Figure 3 shows a turbidity and temperature profile from April 29th at site QUL-18 in Quesnel Lake (at the deepest point of the West Basin, downstream of the Hazeltine Creek mouth).</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.</p> <p>Note: Mount Polley is currently working with their hydrology contractor to refine the Hazeltine Creek rating curves so that data can be presented in this weekly report. Monitoring to refine the stations' rating curves is ongoing.</p>			

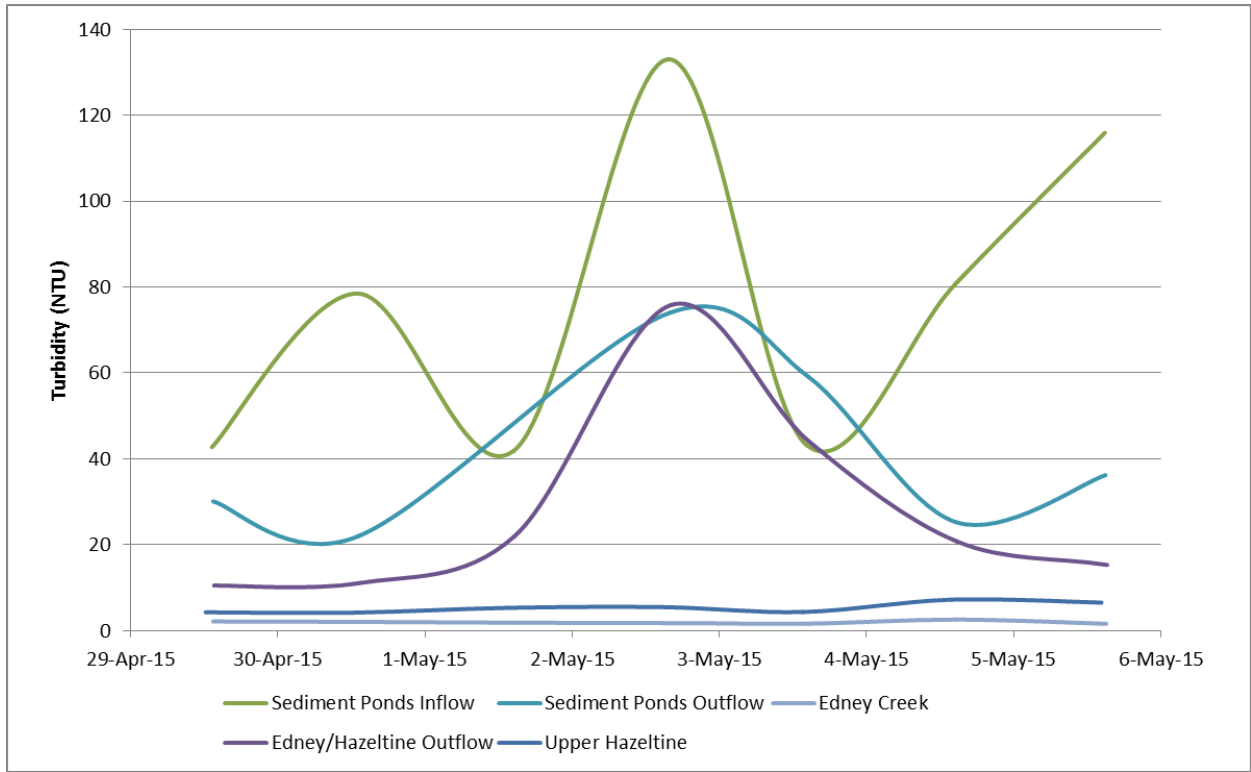


Figure 1. Time series graph for April 29th to May 5th showing turbidity levels at monitoring locations in Hazeltine and Edney Creeks

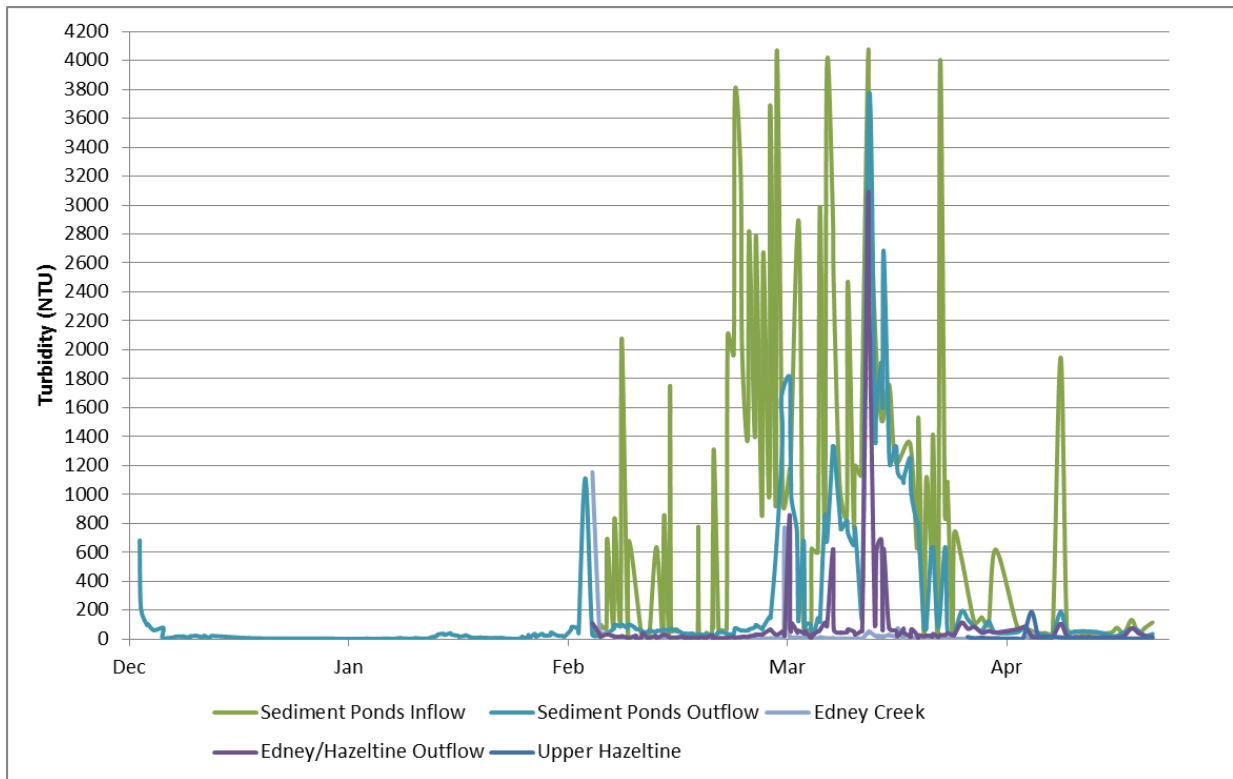


Figure 2. Time series graph for December 12th, 2014, to May 5th, 2015 showing turbidity levels at monitoring locations in Hazeltine and Edney Creeks

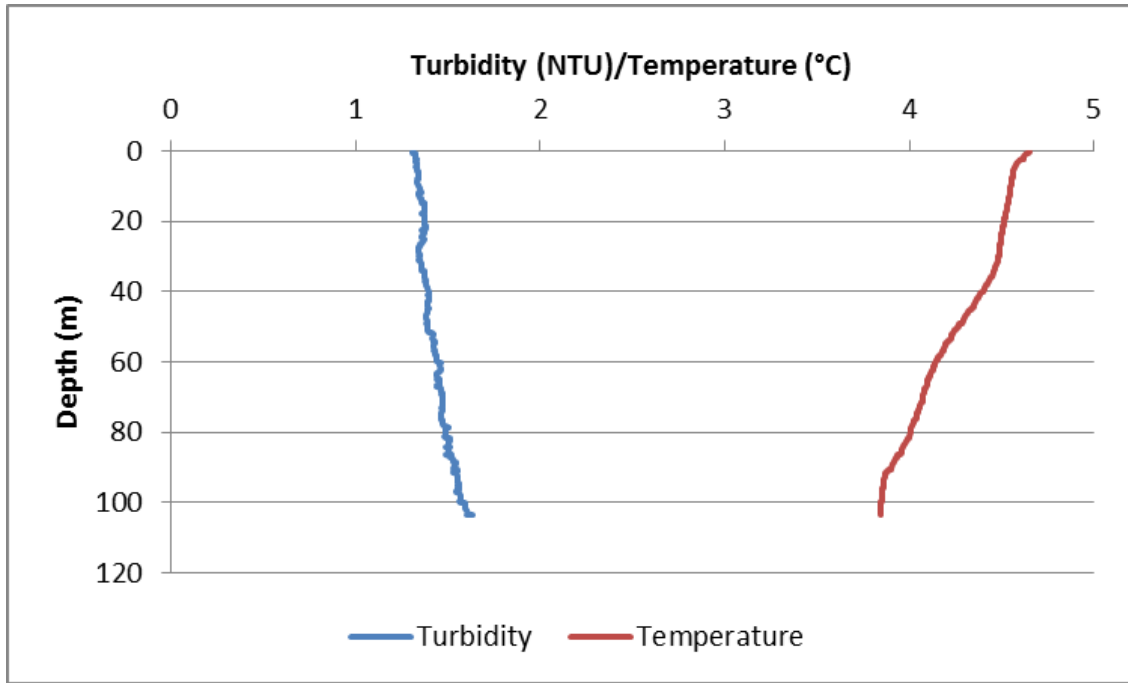


Figure 3. Turbidity and temperature profiles at station QUL-18 from April 29th

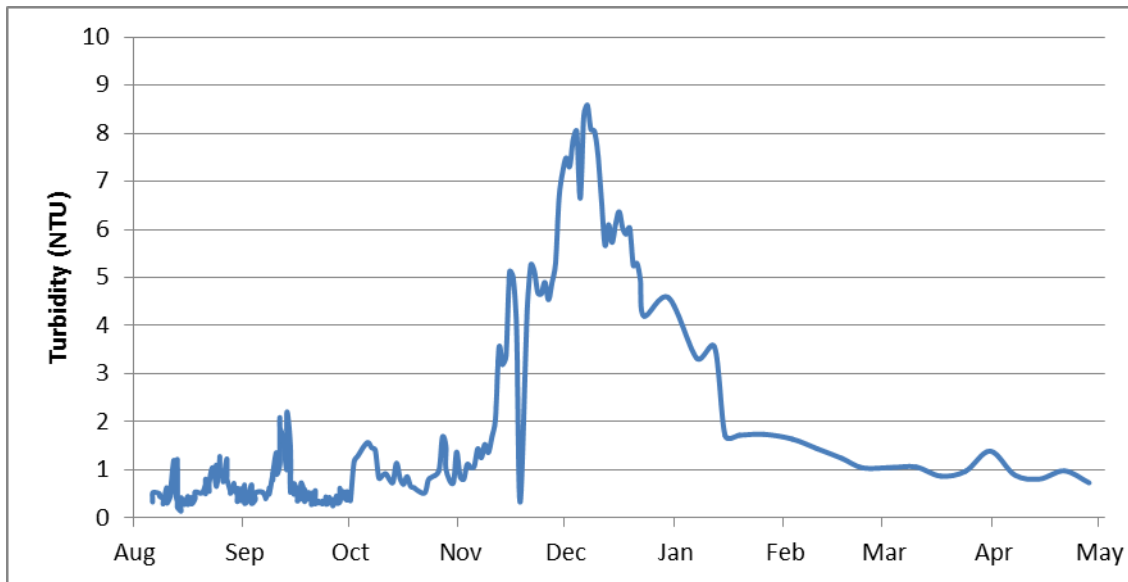


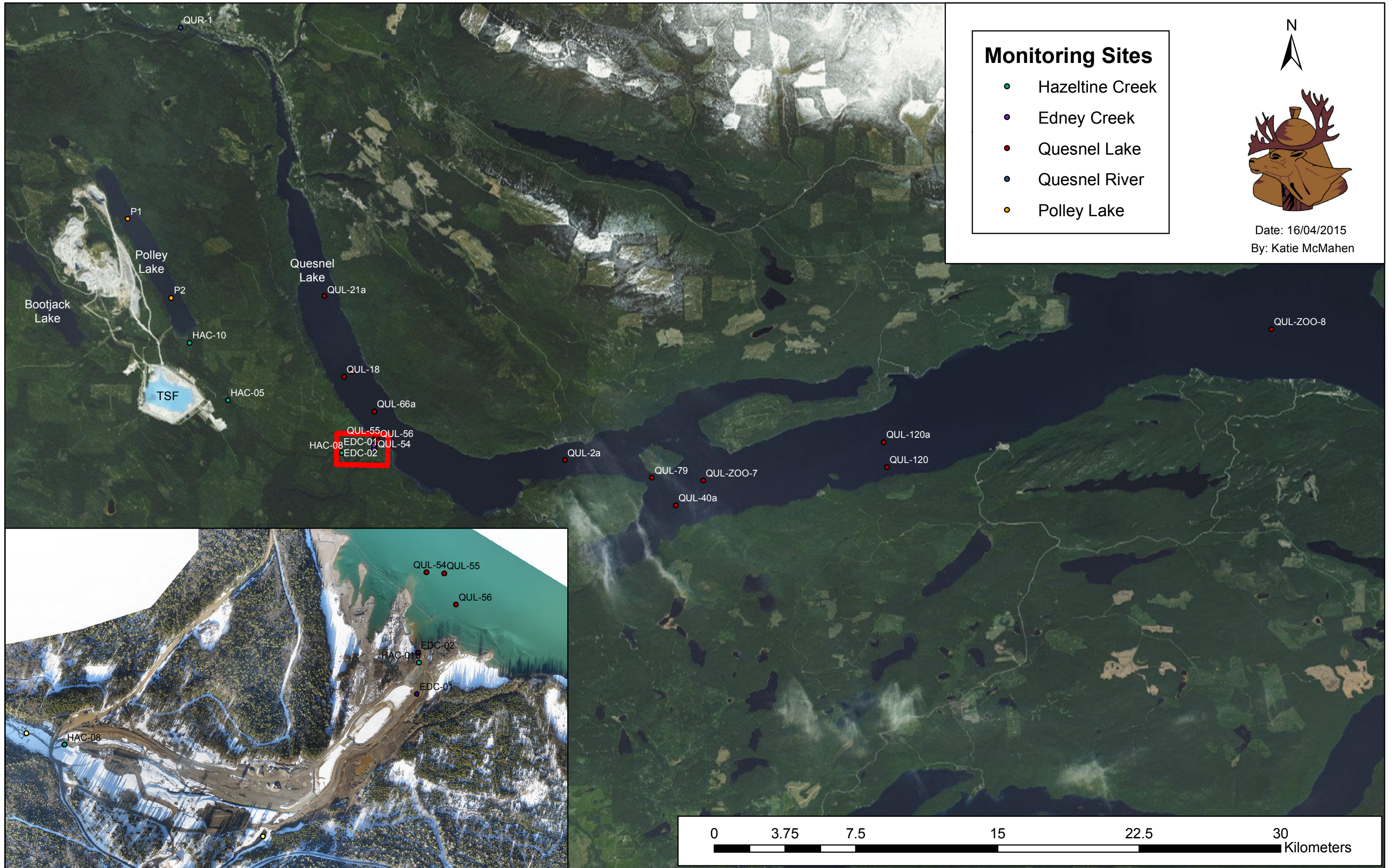
Figure 4. Turbidity time series at station QUR-1 (August 6th, 2014 – April 28th, 2015)

TSF Construction

TSF Construction	<p>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 17th, 2014. An update on work being completed under this approval is as follows:</p> <ul style="list-style-type: none">• Foundation preparation and material placement for Perimeter Embankment buttressing is ongoing.• Upstream Fill material placement for the cut-off wall is ongoing.• CSM (cutter soil mixing) Wall construction is complete.• Buttress placement immediately downstream of the cut-off wall (Phase 2 footprint) is complete <p>Foundation preparation immediately downstream of the cut-off wall (Phase 2 footprint) was completed last week. Other project components that have previously been completed under this approval are detailed in the March 26th, 2015 report.</p>
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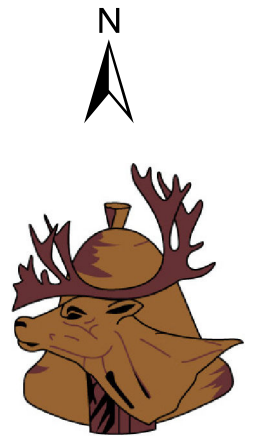
Attachments

Attachment 1: Monitoring Locations Map



Monitoring Sites

- Hazeltine Creek
- Edney Creek
- Quesnel Lake
- Quesnel River
- Polley Lake



Date: 16/04/2015
By: Katie McMahan

QUL-55
EDC-01
EDC-02
HAC-08

