



# Mount Polley Mining Corporation

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**December 30, 2015**

Ministry of Environment  
 Mining Operations Environmental Protection  
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## WEEKLY UPDATE REPORT –DECEMBER 24 TO DECEMBER 29, 2015

### Water Management

<b>Springer Pit</b>	<p>The total volume of tailings deposited in the Springer Pit as of December 28th is 1,702,838 tonnes (1,233,940m<sup>3</sup> including water retained in tailings).</p> <p>Water Elevations (December 29)</p> <ul style="list-style-type: none"> <li>• Springer Pit = 1025.22m (+0.13m from last week)</li> <li>• Groundwater well GW12-2a = 1015.17m (+0.01m from last week)</li> <li>• Groundwater well GW12-2b = 1015.54m (+0.04m from last week)</li> <li>• Groundwater well GW15-1a = 1025.52m (+0.11m from last week)</li> <li>• Groundwater well GW15-1b = 1025.49m (+0.12m from last week)</li> <li>• Groundwater well GW15-2a = 1025.15m (+0.02m from last week)</li> <li>• Groundwater well GW15-2b = 1025.77m (-0.06m from last week)</li> </ul> <p>Monthly water quality results for parameters of interest from the Springer Pit supernatant and adjacent groundwater wells will continue to be presented, as available. The last reported water quality was in the November 26<sup>th</sup> report. New results are expected next week.</p>
<b>Water Discharge</b>	<p>Water discharge continued this week, with discharge rates of 0.23 m<sup>3</sup>/s generally achieved daily. (Flow may be disrupted when routine maintenance and cleaning is preformed).</p>

### Rehabilitation Work

<b>Hazeltine Creek Rehabilitation</b>	<p>There were no activities in the creek this week due to weather and equipment restrictions.</p>
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## Environmental Monitoring Program

<b>Water Quality Monitoring</b>	<p>All water quality monitoring as required by Permit 11678 is current. Quesnel Lake water discharge sampling included collection of in-situ profile data and sample at station QUL-58 only, as weather conditions caused the sampling equipment to freeze. Samples were also collected at end of pipe at the water treatment plant (station HAD-03) and throughout Hazeltine Creek.</p> <p>An updated map of monitoring stations is available on the Imperial Metals website. <a href="http://www.imperialmetals.com/assets/docs/mt-polley/12.03.15.weekly-update.pdf">http://www.imperialmetals.com/assets/docs/mt-polley/12.03.15.weekly-update.pdf</a></p>
<b>Results</b>	<p>Table 1 shows a selection of the laboratory analysis results for grab samples collected at the water treatment plant end of pipe (HAD-03) on December 3<sup>rd</sup>, 7<sup>th</sup> and 15<sup>th</sup> compared to the permit requirements. Though not all parameters are shown here, all were below the permit guidelines. Results for sample collected December 22<sup>nd</sup> were not available prior to reporting.</p> <p>Table 2 shows a selection of the laboratory analysis results for grab samples collected at the edge of the initial dilution zone in Quesnel Lake (QUL-58) on December 2<sup>nd</sup>, 9<sup>th</sup>, and 14<sup>th</sup>. Though not all parameters are shown here, all were below the aquatic guidelines or at background levels. Results for sample collected December 22<sup>nd</sup> were not available prior to reporting.</p> <p>Figure 1 shows field parameter profile results for turbidity and temperature at station QUL-58 in Quesnel Lake (station 100m from the Hazeltine Creek outflow diffusers, at the edge of the initial dilution zone).</p> <p>Figure 2 shows field turbidity readings for upper, middle and lower Hazeltine Creek.</p> <p>Figure 3 shows a time series graph of turbidity readings at site QUR-1 in the upper Quesnel River.</p>

Table 1. Sample analysis results for HAD-03 (end of pipe from the water treatment plant).

	Lab Analysis Results for HAD-03			Permit 11678
	12/3/2015 11:33	12/7/2015 10:18	12/15/2015 13:33	mg/L
Total Suspended Solids (mg/L)	13.9	8.2	7.6	15
Nitrate (as N) (mg/L)	7.13	7.33	7.78	9.7
Copper (Cu)-Total (mg/L) (mg/L)	0.00461	0.00412	0.00403	0.012
Molybdenum (Mo)-Total (mg/L)	0.155	0.147	0.141	0.41
Selenium (Se)-Total (mg/L)	0.0274	0.029	0.0302	0.06
Sulphate (mg/L)	535	526	525	720
Cadmium (Cd)-Total (mg/L) (mg/L)	0.0000694	<0.000050	0.0000177	N/A

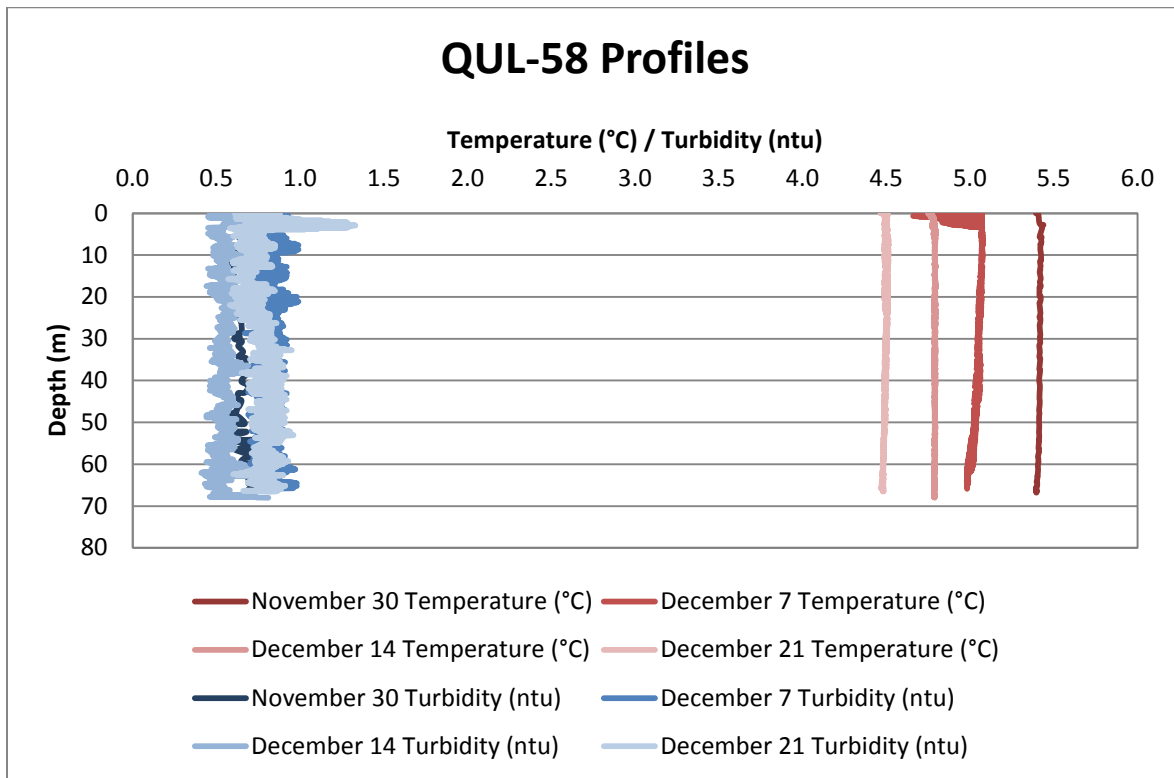


Figure 1. Turbidity and temperature profiles at QUL-58 on November 30<sup>th</sup>, December 7<sup>th</sup>, 14<sup>th</sup> and 21<sup>st</sup>

Table 2. Sample analysis results from the Quesnel Lake initial dilution zone (QUL-58)

	QUL-58-S	QUL-58-Mid	QUL-58-B	QUL-58-S	QUL-58-Mid	QUL-58-B	QUL-58-S	QUL-58-Mid	QUL-58-B
	12/2/2015 11:35	12/2/2015 12:09	12/2/2015 12:25	12/9/2015 10:18	12/9/2015 12:42	12/9/2015 12:53	12/14/2015 11:19	12/14/2015 11:30	12/14/2015 11:41
Total Suspended Solids (mg/L)	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Nitrate (as N) (mg/L)	0.105	0.106	0.105	0.110	0.110	0.112	0.116	0.115	0.114
Copper (Cu)-Total (mg/L)	0.00163	0.00149	0.00136	0.00143	0.00150	0.00281	0.00130	0.00138	0.00157
Molybdenum (Mo)-Total (mg/L)	0.000452	0.000414	0.000404	<0.00050	<0.00050	<0.00050	0.000466	0.000426	0.000443
Selenium (Se)-Total (mg/L)	0.000113	0.000096	0.000089	0.000099	0.000089	0.000103	0.000110	0.000108	0.000110
Sulphate (mg/L)	6.66	6.60	6.60	6.67	6.70	6.84	6.68	6.63	6.58
Cadmium (Cd)-Total (mg/L)	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050

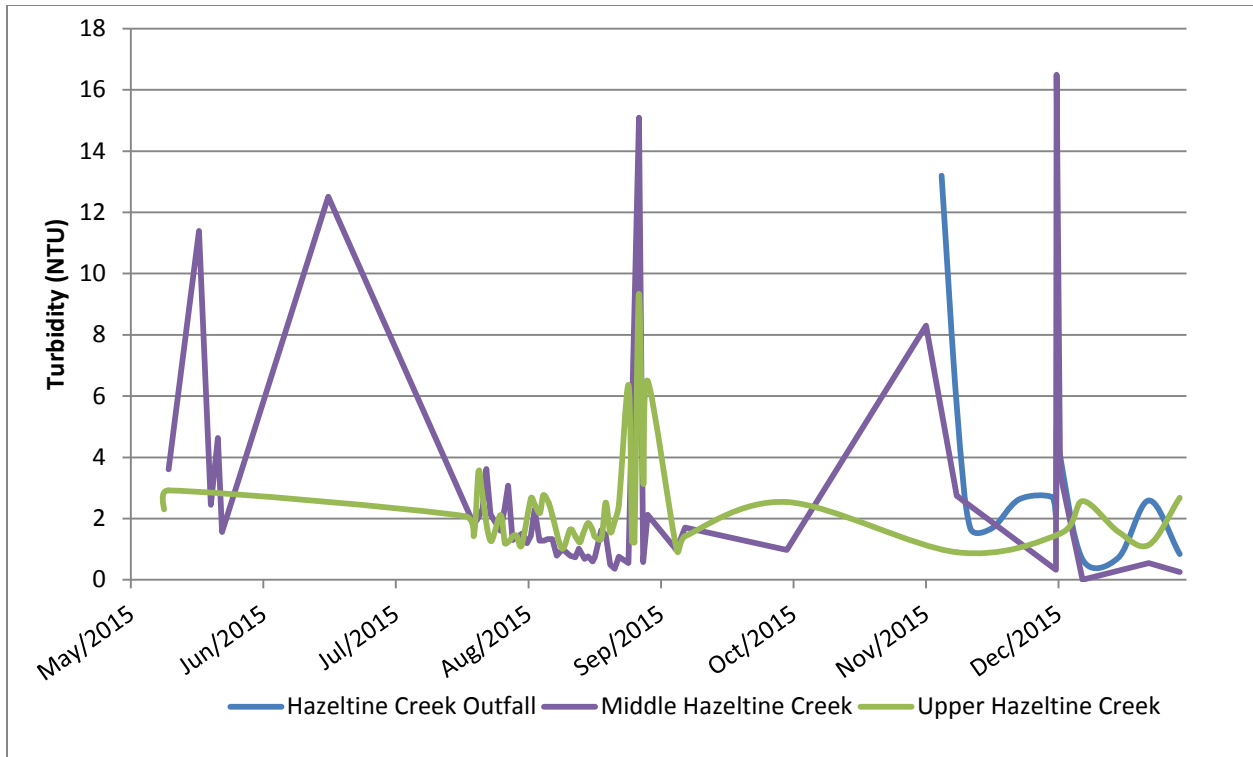


Figure 2. Time series graph for May 15, 2015 – December 29, 2015 showing turbidity levels at monitoring locations in upper and lower Hazeltine Creek (note: discharge commenced on December 1<sup>st</sup> causing a short-lived increase in turbidity in the middle reaches of Hazeltine Creek)

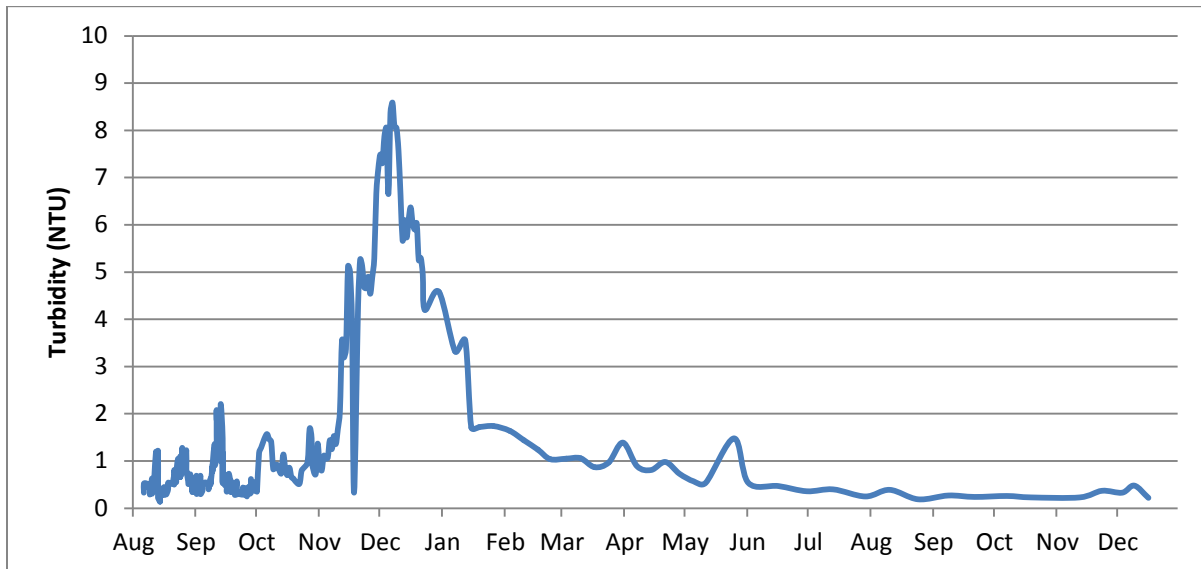


Figure 3. Turbidity time series at station QUR-1 (December 1, 2014 – December 16, 2015)