



# Mount Polley Mining Corporation

an Imperial Metals company

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**November 21, 2014**

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

## WEEKLY POST-TSF BREACH REPORT – WEEK OF NOVEMBER 12 – 18, 2014

### Water Management and TSF Works

<b>Polley Lake Dewatering</b>	<p>Polley Lake water elevation = 921.63 m (November 19<sup>th</sup>)</p> <p>To maintain the lake water level within its natural range, pumping from Polley Lake to Hazeltine Creek continued all week.</p> <p>Design work for a weir structure at the outlet of Polley Lake is in the final stages.</p>
<b>Breaches</b>	<p>No breaches of the water management system containing water flow from the Tailings Storage Facility (TSF) occurred this week.</p>
<b>TSF and Water Management Structures</b>	<p>All works shown in Figure 1 are complete, with the exception of the following projects:</p> <ul style="list-style-type: none"><li>• The first 3 metre buttress lift along the Perimeter Embankment has started over the area prepared in 2013.</li><li>• The foundation preparation for additional buttressing along the Perimeter Embankment is 8.5% complete.</li><li>• The Plug Access Road (PAR) has extended south to Hazeltine Creek along the old channel. The next project is to excavate a 40m wide channel down to native soil east of the road PAR, with excavated tailings being returned to the TSF.</li></ul> <p>All water from TSF water collection systems is currently transferred to Springer Pit via the Central Collection Sump. Water from the Breach Pump is transferred via the Breach Sump and Ditch to the Till Borrow Pit to allow settling of suspended solids prior to being transferred to the Central Collection Sump.</p>



**Figure 1. Tailings Storage Facility construction works**

## Sediment and Erosion Control Measures

<p><b>Silt Curtain</b></p>	<p>The silt curtain attached to the log boom at the mouth of Hazeltine Creek continues to remove sediment from the water column. The curtain is in good condition.</p>
<p><b>Sediment Control Works</b></p>	<p>Current sediment and erosion control works underway on lower Hazeltine Creek (below the Ditch Road) include:</p> <ul style="list-style-type: none"> <li>• Construction of the Upper and Lower Sedimentation Ponds (see Section 5 of the Lower Hazeltine Creek Erosion and Sediment Control Plan [the Plan]). The Upper Pond is nearly complete. The Lower Pond is approximately 85% complete. Completion of berms and final touches (connections, rip rap, etc.) are still outstanding. If no delays are encountered, it is anticipated these ponds will be commissioned in approximately 3 weeks.</li> <li>• Screening of material for creek restoration (Design Drawings in the Plan).</li> <li>• Upgrading of access roads (Section 4 of the Plan).</li> <li>• Re-grading and landscaping of select areas (Sections 4 and 9 of the Plan).</li> <li>• Installation and maintenance of silt control measures including silt fences and straw bales (see Section 5 of the Plan).</li> </ul> <p>Rehabilitation work is planned for late November in the lower 100 m of Edney Creek. The pump around system is in place and fish salvage was completed. Construction of a temporary access road, which will require culverts, is planned.</p> <p>Environmental construction monitoring is occurring continuously during all activities. No change in turbidity in the creek water has been detected as a result of the construction.</p> <p>Design work on the sediment and erosion control plan for upper Hazeltine Creek is complete and under review.</p> <p>Design work on the sediment and erosion control plan for middle Hazeltine Creek is underway.</p>

## Water Quality Monitoring Program

The maps on pages 1 – 8 of Figure 5 (attached) show locations that have been sampled as part of the water quality monitoring program. The following table is a summary of the current water quality monitoring program. All locations were monitored this week except for QUL-18, however, this site was sampled on November 11<sup>th</sup> and November 20<sup>th</sup>. Time/weather permitting sites QUL-2, QUL-31a, and QUL-87 were sampled this week.

Frequency	Area	Sample Locations
Daily	Quesnel River	QUR-1
	Hazeltine Creek	HAC-01a
Weekly	Quesnel Lake	QUL-2a, QUL-18, QUL-21a, QUL-40a, QUL-66, QUL-66a, QUL-112/QUL-112a, QUL-120/QUL-120a, QUL-zoo-8/QUL-zoo-8a
	Hazeltine Creek	HAD-1, HAC-05
	Polley Lake	P1, P2, POL-5, POL-6
2x/week	Quesnel Lake	QUL-79
Time/weather permitting	Quesnel Lake	QUL-2, QUL-20, QUL-21, QUL-22, QUL-31a, QUL-87, QUL-119

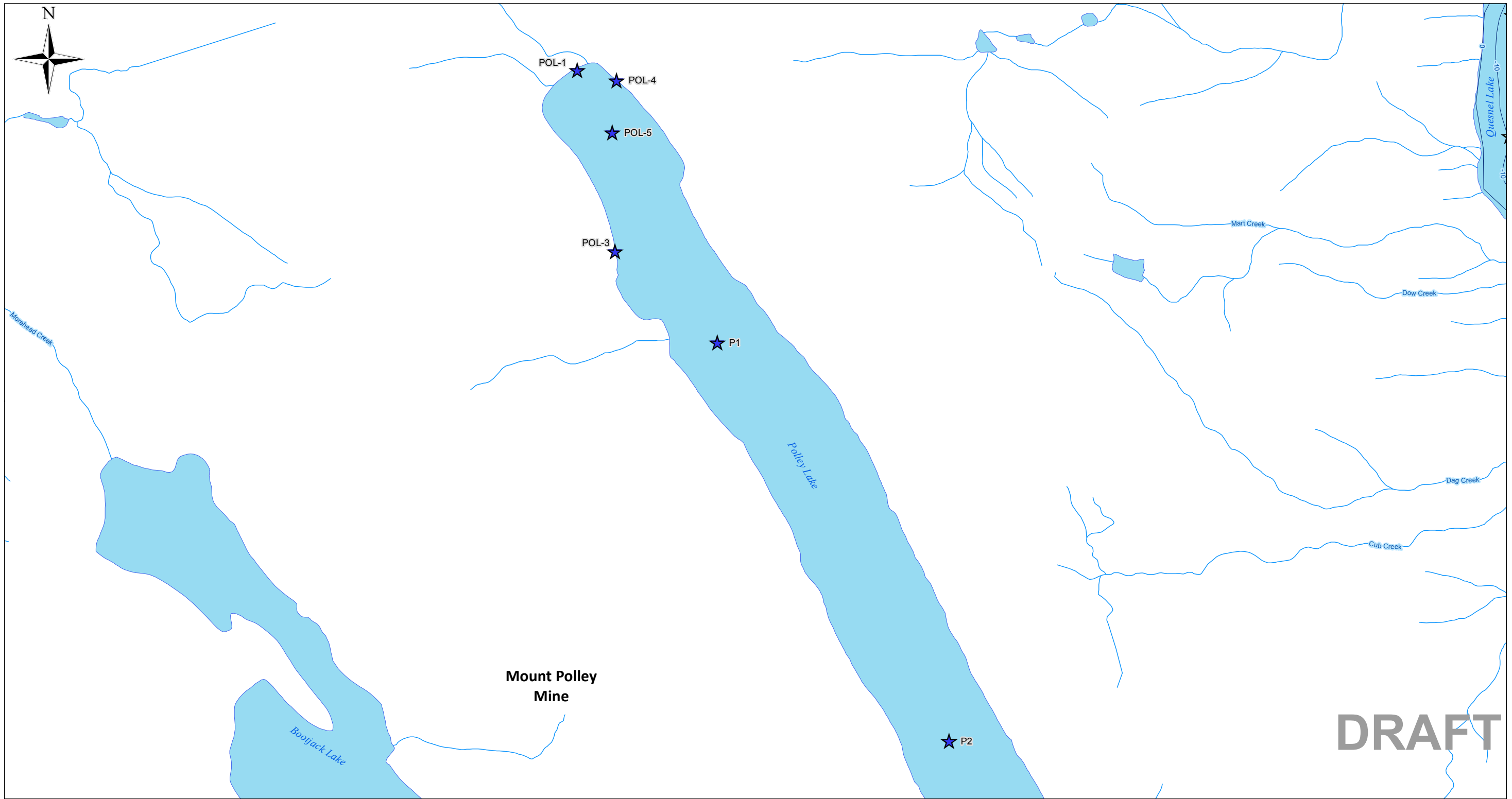
## Environmental Monitoring Results

Mount Polley will continue to present interpreted data on the [Mount Polley Updates](#) page of the Imperial Metals website. On November 12<sup>th</sup> a poster presenting data on [Quesnel Lake physical limnology](#) was posted on the website, and on November 14<sup>th</sup> a notice on [Quesnel Lake Cloudiness at Lake Overturn](#) was published. Hard copies of the notice regarding overturn were also distributed to residents in Likely, Horsefly, and Mitchell Bay.

## ATTACHMENTS

Drawings:

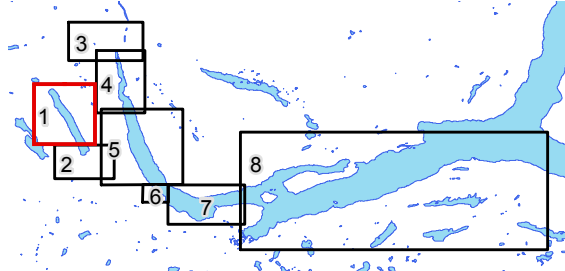
612717-005-P1 through 612717-005-P8: Current Monitoring Locations (Figure 5)



**LEGEND**

**Surface Water Sampling Locations**

- ★ Hazeltine Creek
- ★ Polley Lake
- ★ Quesnel Lake
- ★ Other Areas

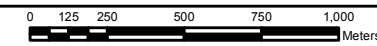


**NOTES**

1. Original in colour.
  2. Numerical scale reflects full-size print. Print scaling will distort this scale, however scale bar will remain accurate.
  3. Intended for illustration purposes, accuracy has not been verified for construction or navigation purposes.
- \* Note: Shoreline has been modified from the Fresh Water Atlas source data in the area of Hazeltine Creek Mouth to reflect post-release conditions.

**REFERENCES**

1. Data provided by Mount Polley Mining Corporation
2. Data downloaded from Data.Gov.BC.ca Data Distribution Service.
3. Orthophoto collected by McElhanney on August 5th, 2014

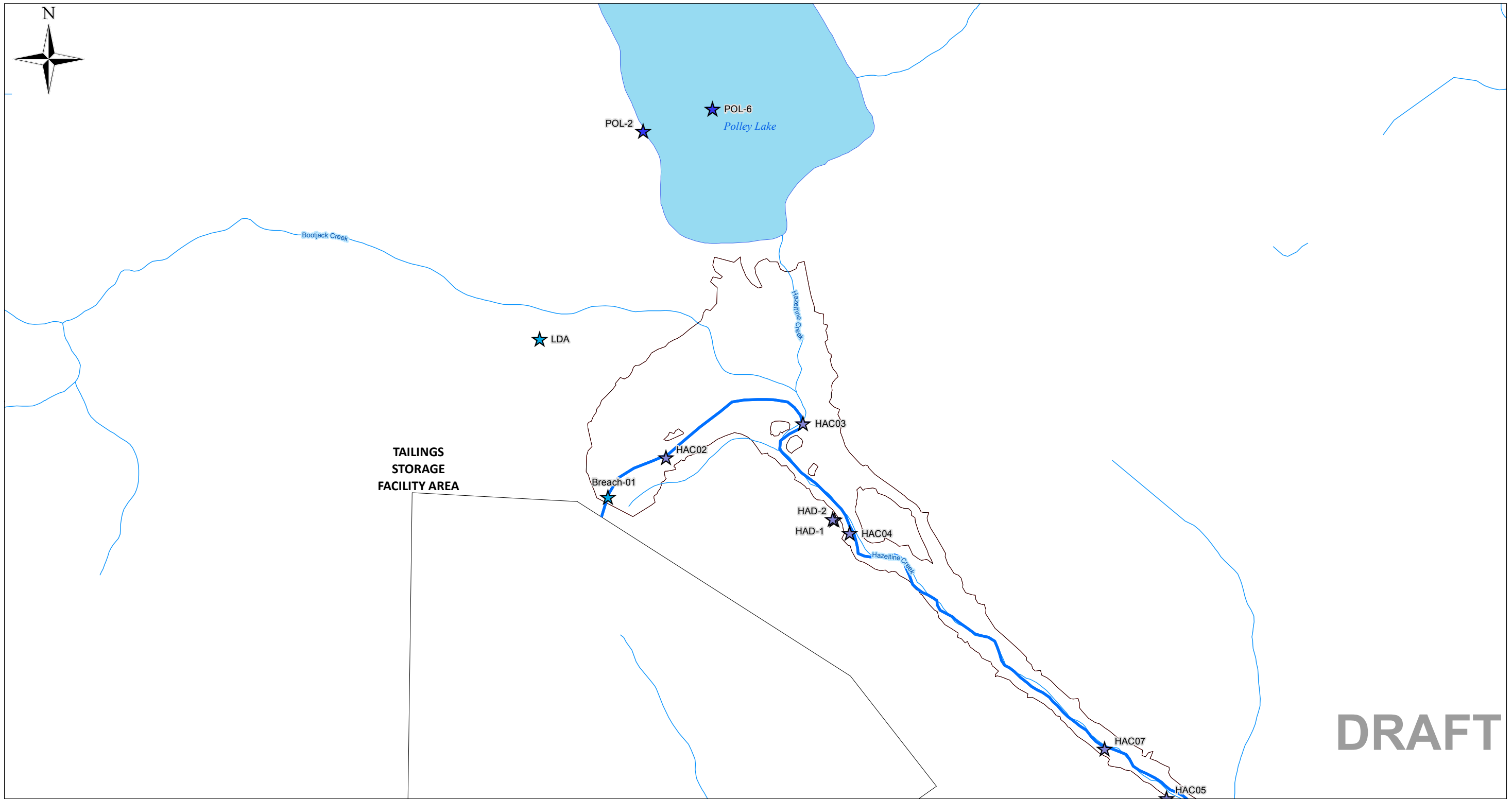


CLIENT NAME: MPMC	PROJECT LOCATION: Mount Polley Mine, British Columbia
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**Figure 5: Current Monitoring Locations**  
Page 1 of 8

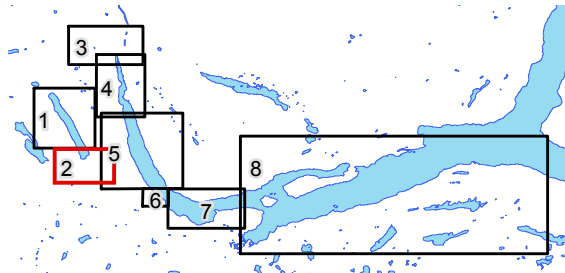
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MXD Path: \\Proj\_srv\projects\LOB\IAM-BC\Current Projects\Mount Polley Mining Corporation\621717\_Execution\4.5 GIS and Drawings\GIS\621717-005\_SampleLocPlanSeries.mxd



**LEGEND**

- Surface Water Sampling Locations**
- ★ Hazeltine Creek
  - ★ Polley Lake
  - ★ Quesnel Lake
  - ★ Other Areas
  - New Hazeltine Creek Channel (Approximate)

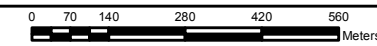


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CLIENT NAME: MPMC	PROJECT LOCATION: Mount Polley Mine, British Columbia
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**Figure 5: Current Monitoring Locations**  
Page 2 of 8

BY: CJW	SCALE: 1:13,800	DATE: 2014/11/05	REF No: REV: <b>7</b>
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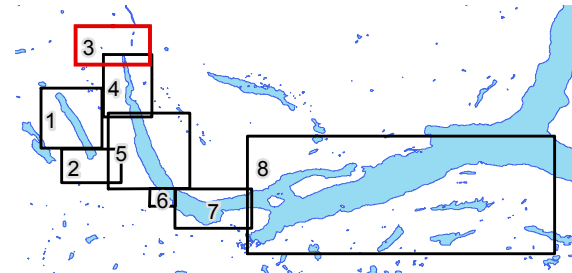
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**LEGEND**

**Surface Water Sampling Locations**

- ★ Hazeltine Creek
- ★ Polley Lake
- ★ Quesnel Lake
- ★ Other Areas



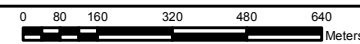
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CLIENT NAME:  
MPMC

PROJECT LOCATION:  
Mount Polley Mine,  
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**Figure 5: Current Monitoring Locations**  
Page 3 of 8

BY: CJW

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DATE: 2014/11/05

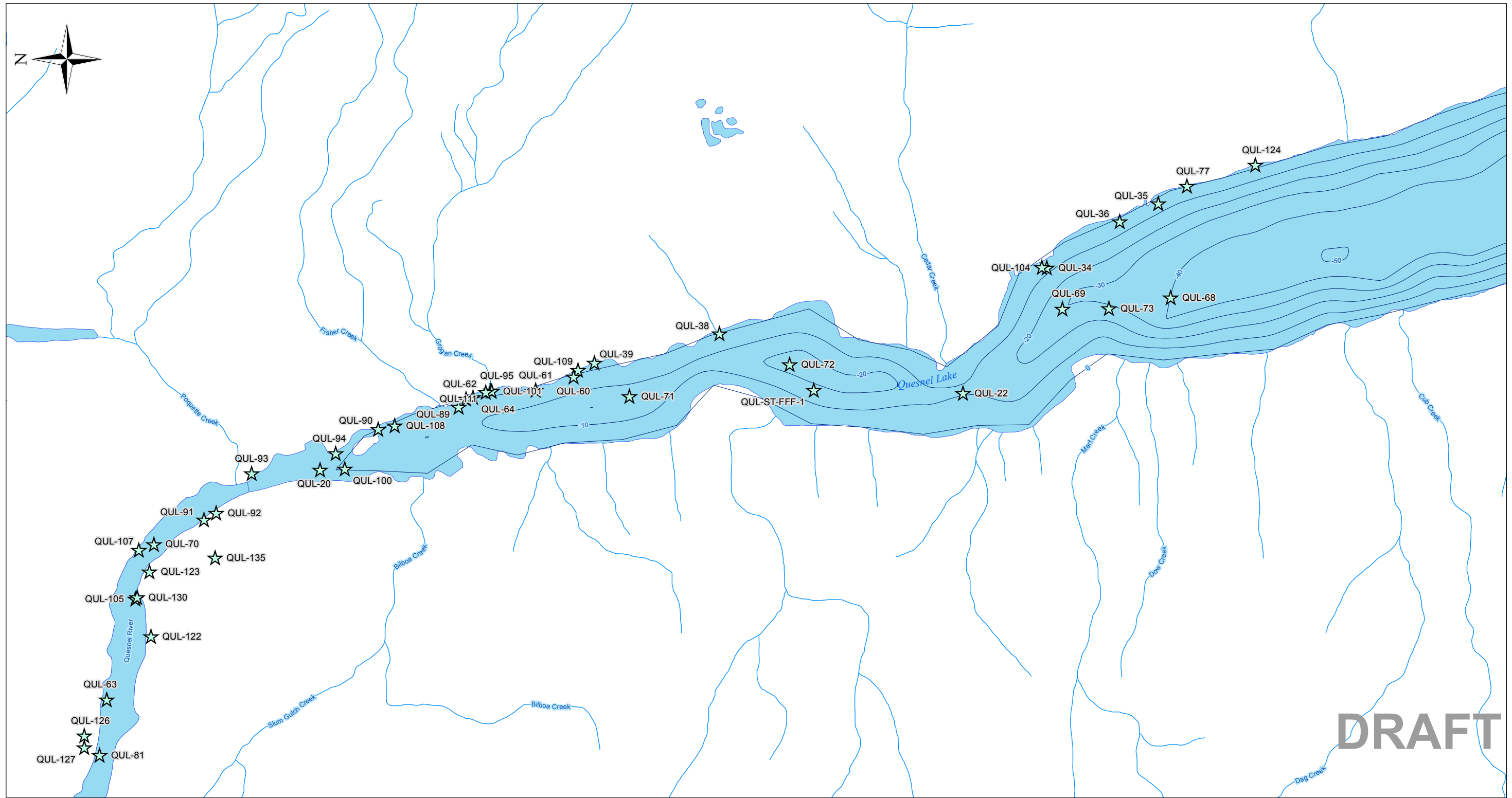
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621717-005-P3

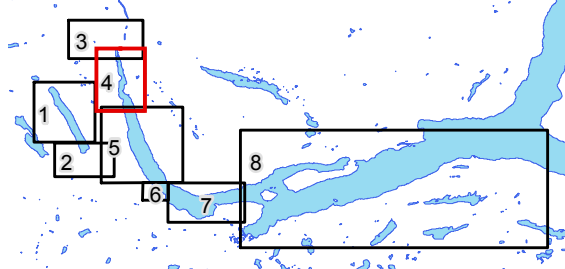




**LEGEND**

**Surface Water Sampling Locations**

- ★ Hazeltine Creek
- ★ Polley Lake
- ★ Quesnel Lake
- ★ Other Areas

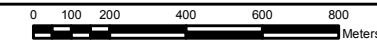


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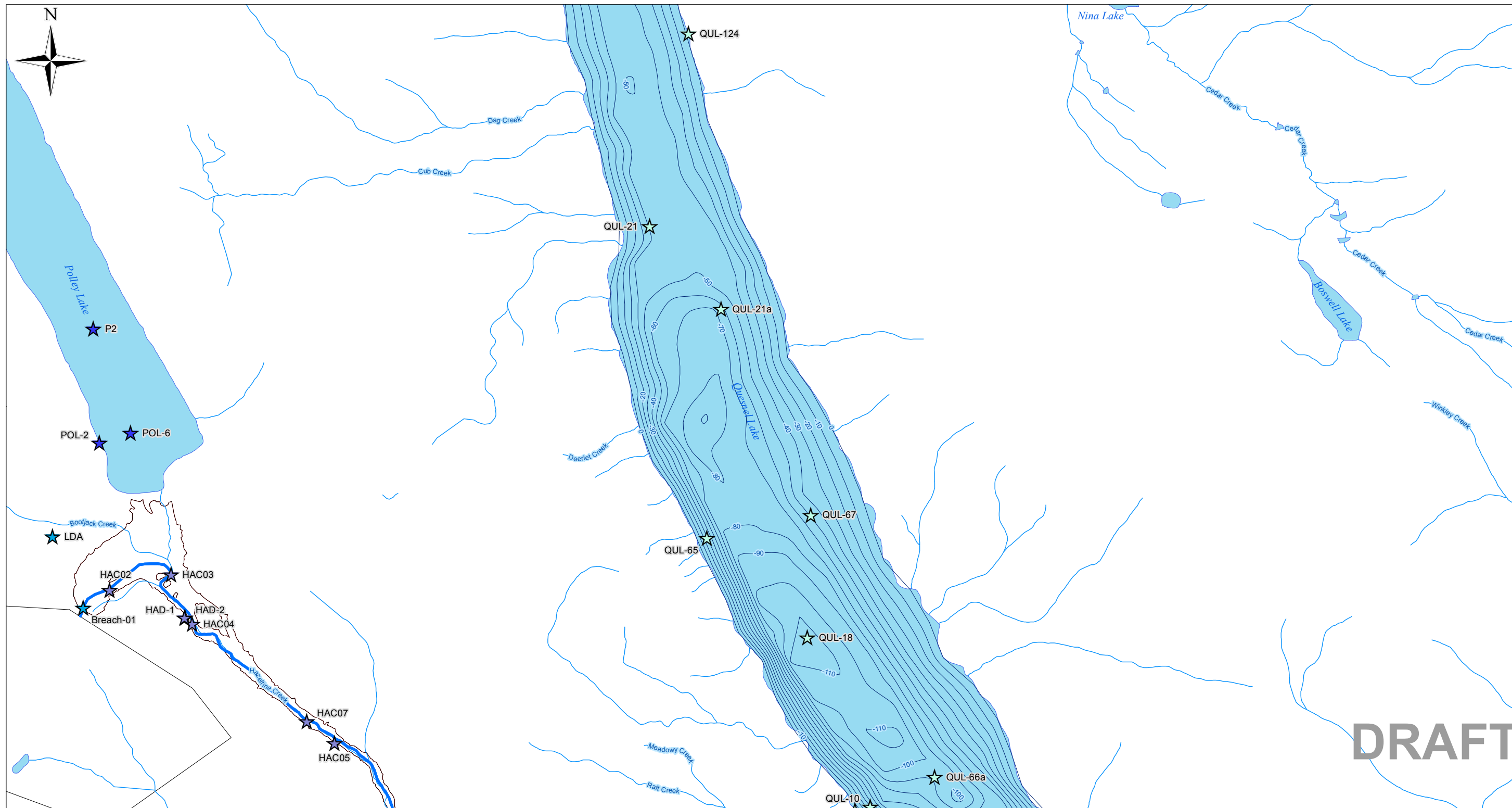
CLIENT NAME: MPMC	PROJECT LOCATION: Mount Polley Mine, British Columbia
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**Figure 5: Current Monitoring Locations**  
Page 4 of 8

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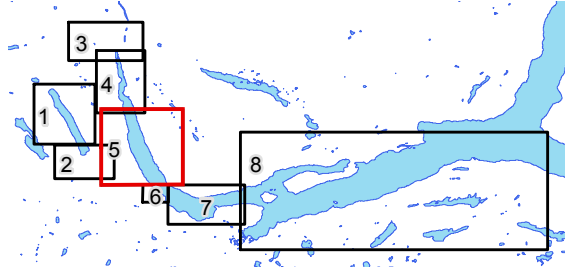
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**LEGEND**

**Surface Water Sampling Locations**

- ★ Hazeltnie Creek
- ★ Polley Lake
- ★ Quesnel Lake
- ★ Other Areas
- New Hazeltnie Creek Channel (Approximate)

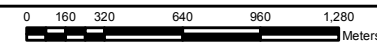


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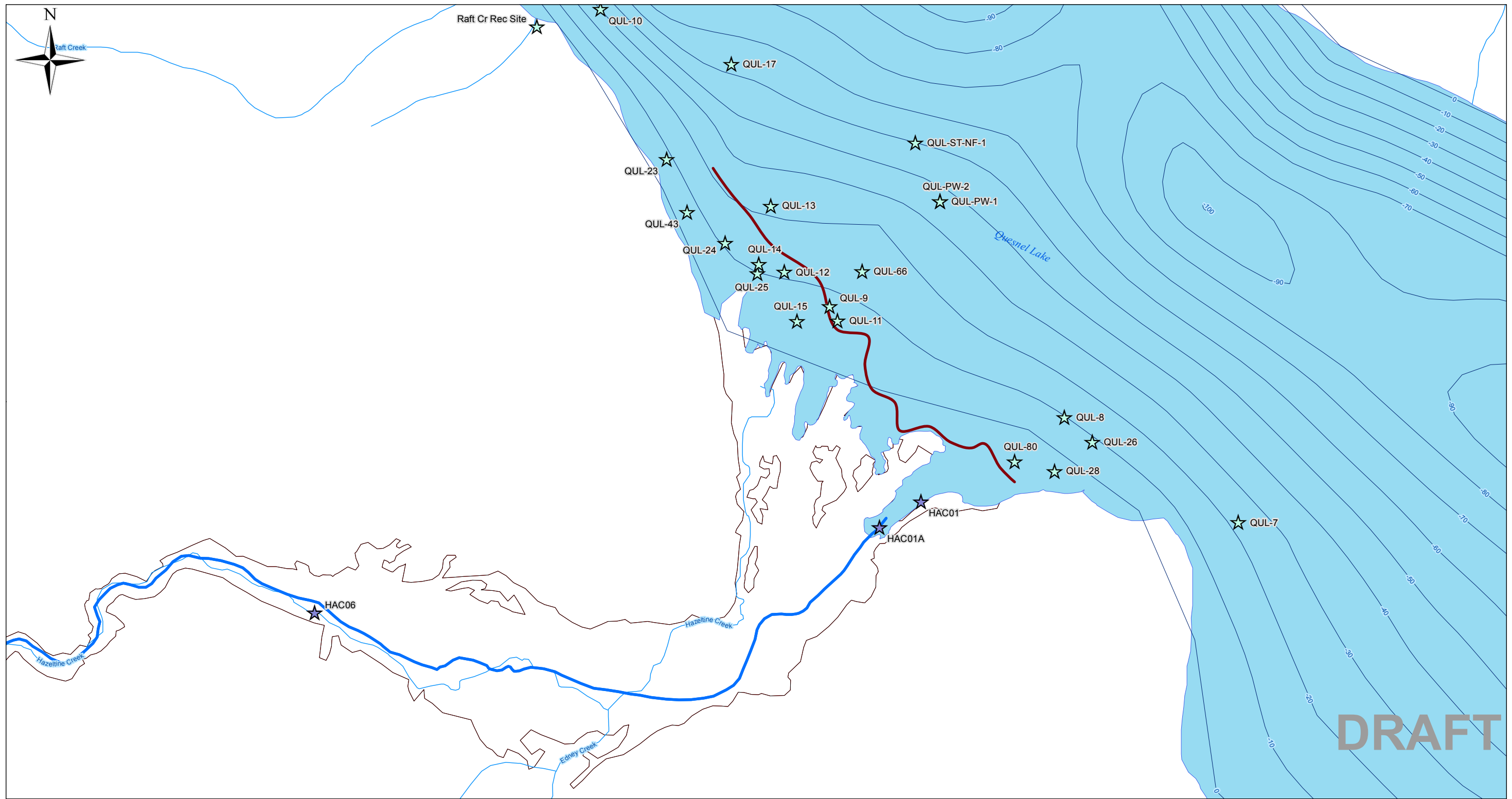


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Page 5 of 8

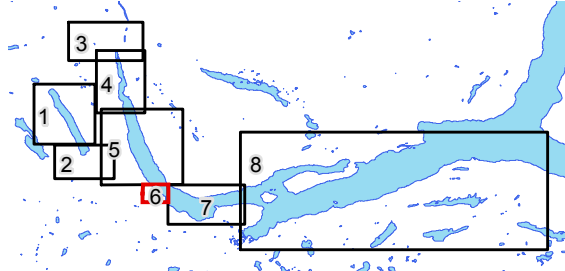
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MXD Path: \\Proj\_srv\projects\LOB\IAM-BC\Current Projects\Mount Polley Mining Corporation\621717\_Execution\4.5 GIS and Drawings\GIS\621717-005\_SampleLocPlanSeries.mxd



**LEGEND**

- Surface Water Sampling Locations**
- Hazeltine Creek
  - Polley Lake
  - Quesnel Lake
  - Other Areas
  - Silt Curtain/Log Boom
  - New Hazeltine Creek Channel (Approximate)

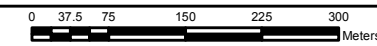


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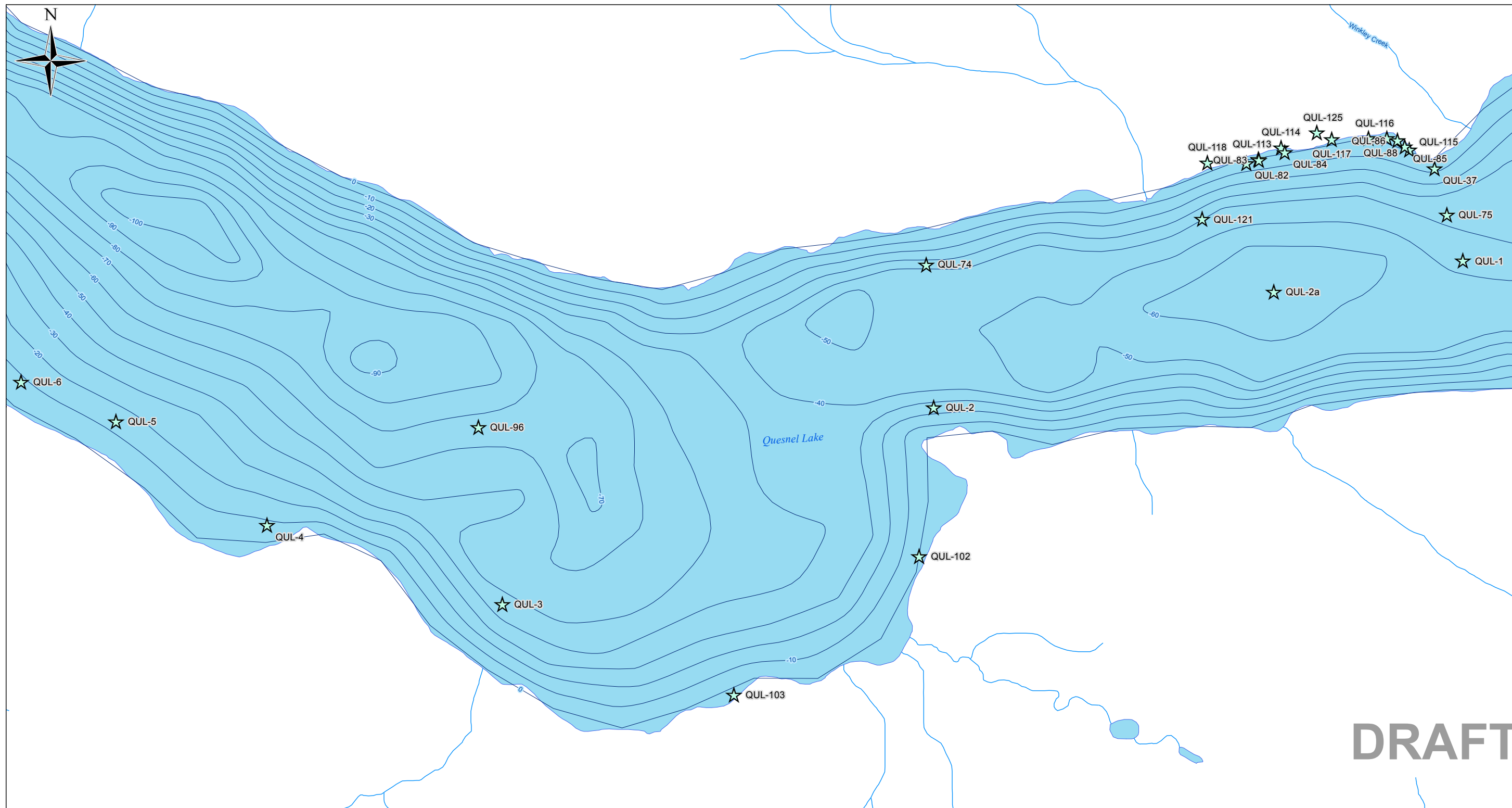


CLIENT NAME: MPMC	PROJECT LOCATION: Mount Polley Mine, British Columbia
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**Figure 5: Current Monitoring Locations**  
Page 6 of 8

BY: CJW	SCALE: 1:7,400	DATE: 2014/11/05	REF No: 621717-005-P6	REV: <b>7</b>
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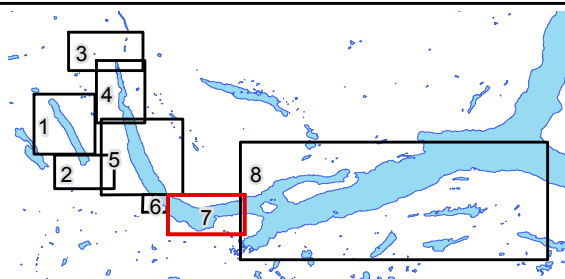
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**LEGEND**

**Surface Water Sampling Locations**

- ★ Hazeltine Creek
- ★ Polley Lake
- ★ Quesnel Lake
- ★ Other Areas

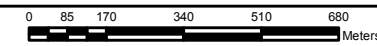


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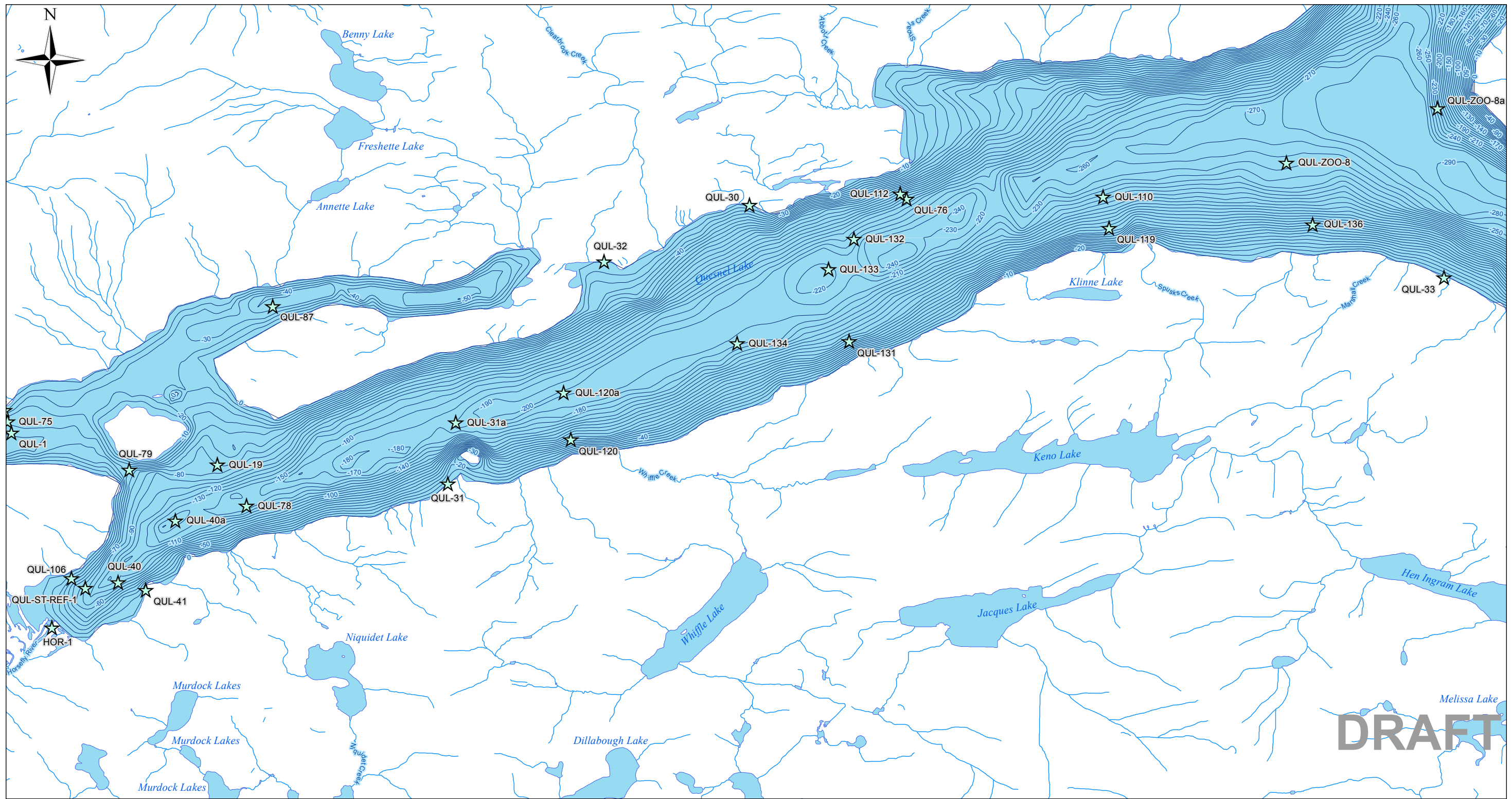


CLIENT NAME: MPMC  
 PROJECT LOCATION: Mount Polley Mine, British Columbia

**Figure 5: Current Monitoring Locations  
 Page 7 of 8**

BY: CJW    SCALE: 1:16,600    DATE: 2014/11/05    REF No: 621717-005-P7    REV: 7  
 CHK'D: JL    PROJ COORD SYS: NAD 1983 UTM Zone 10N

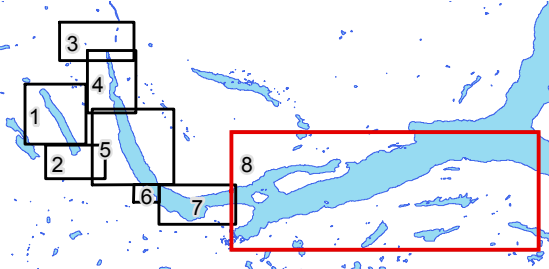
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**LEGEND**

**Surface Water Sampling Locations**

- ★ Hazeltine Creek
- ★ Polley Lake
- ★ Quesnel Lake
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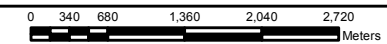


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Page 8 of 8

BY: CJW  
CHKD: JL

SCALE: 1:66,800  
PROJ COORD SYS: NAD 1983 UTM Zone 10N

DATE: 2014/11/05

REF No: 621717-005-P8  
REV: 7