



# Mount Polley Mining Corporation

an Imperial Metals company

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

**November 14, 2014**

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

## WEEKLY POST-TSF BREACH REPORT – WEEK OF NOVEMBER 5 – 11, 2014

### Water Management and TSF Works

<b>Polley Lake Dewatering</b>	<p>Polley Lake water elevation = 921.75 m</p> <p>To maintain the lake water level within its natural range, pumping from Polley Lake to Hazeltine Creek continued all week, with the exception of approximately 8:00am on Thursday November 6<sup>th</sup> to 4:00pm on Friday November 7<sup>th</sup> (to accommodate hydrology work being completed downstream).</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>• Work to adjust the overflow culverts and increase the capacity of the Central Collection Sump is in the planning phase.</li> <li>• The buttress lift along the Perimeter Embankment is underway.</li> <li>• The foundation preparation for additional buttressing along the Perimeter Embankment is 3% complete.</li> <li>• The Perimeter Access Road (referred to as the Breach Haul Road in Figure 1) is being extended with a narrow and shallow road towards Hazeltine Creek along the old channel.</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 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

<b>Silt Curtain</b>	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.
<b>Sediment Control Works</b>	<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 30% complete. <ul style="list-style-type: none"> <li>○ The proposed access road between the two sedimentation ponds is no longer required and will not be constructed. Approximately 12 to 15 culverts will no longer be required.</li> </ul> </li> <li>• Upgrading of access roads (Section 4 of the Plan).</li> <li>• Rehabilitation work is just beginning in the lower 100 m of Edney Creek. An application to MFLNRO and DFO was submitted and approved this past week.</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>Environmental construction monitoring is occurring continuously during all activities. No change in turbidity in the water in Hazeltine Creek 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>

## 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. HAC-01a was not sampled one day this week due to time constraints. All locations, including time/weather permitting sites, were completed this week except for QUL-66a, which was completed on November 12<sup>th</sup>.

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 (when pumping), 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

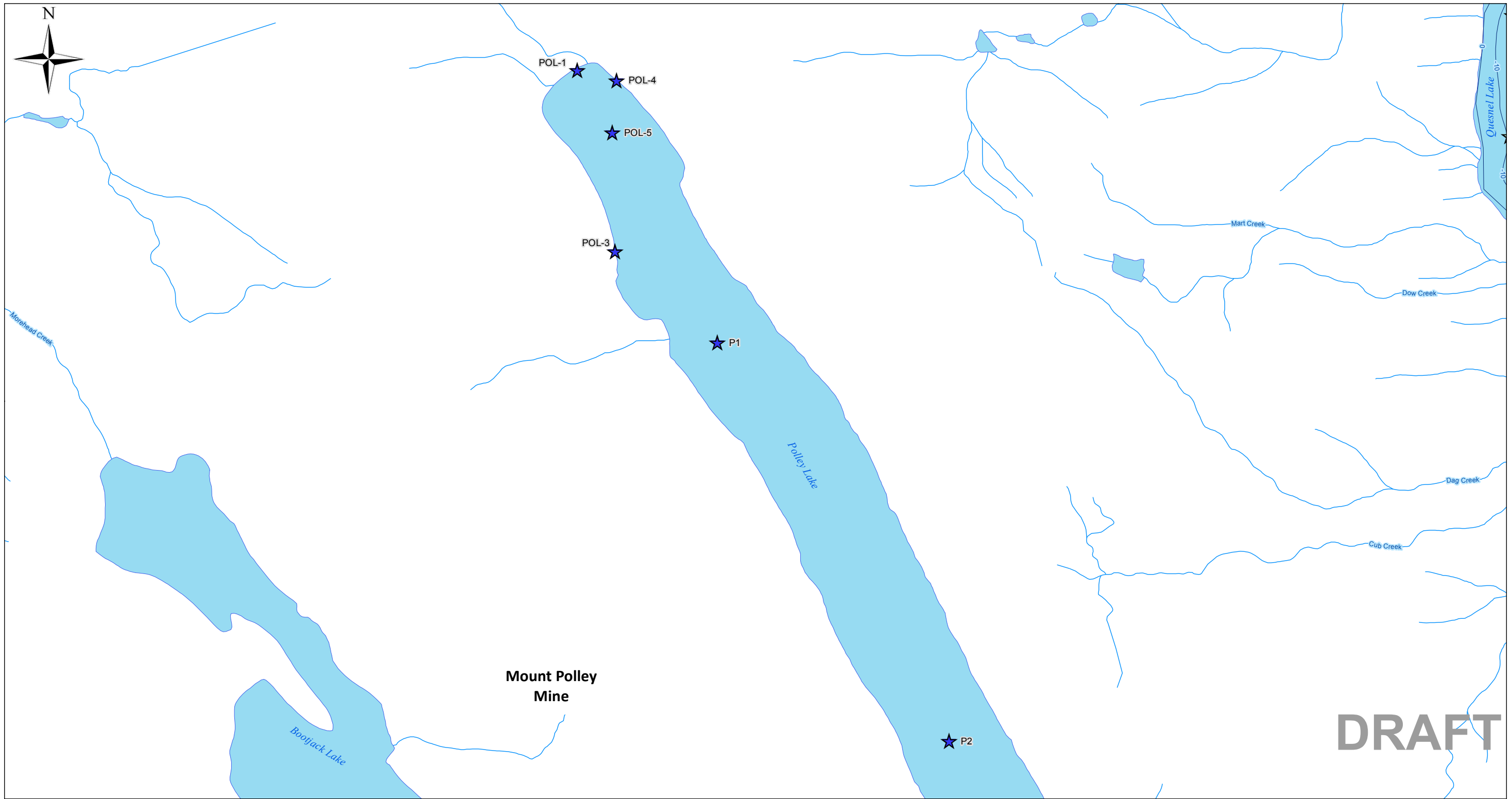
## **Environmental Monitoring Results**

Mount Polley will continue to present interpreted data on the [Mount Polley Updates](#) page of the Imperial Metals website. On November 10<sup>th</sup>, a [Summary of Preliminary Results of Soil Quality Impact Assessment](#) was published on the website.

## **ATTACHMENTS**

Drawings:

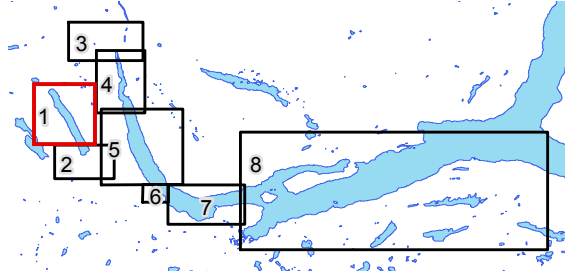
612717-005-P1 through 612717-005-P8: Current Monitoring Locations (Figure 5)



**LEGEND**

**Surface Water Sampling Locations**

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

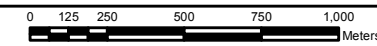


**NOTES**

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**

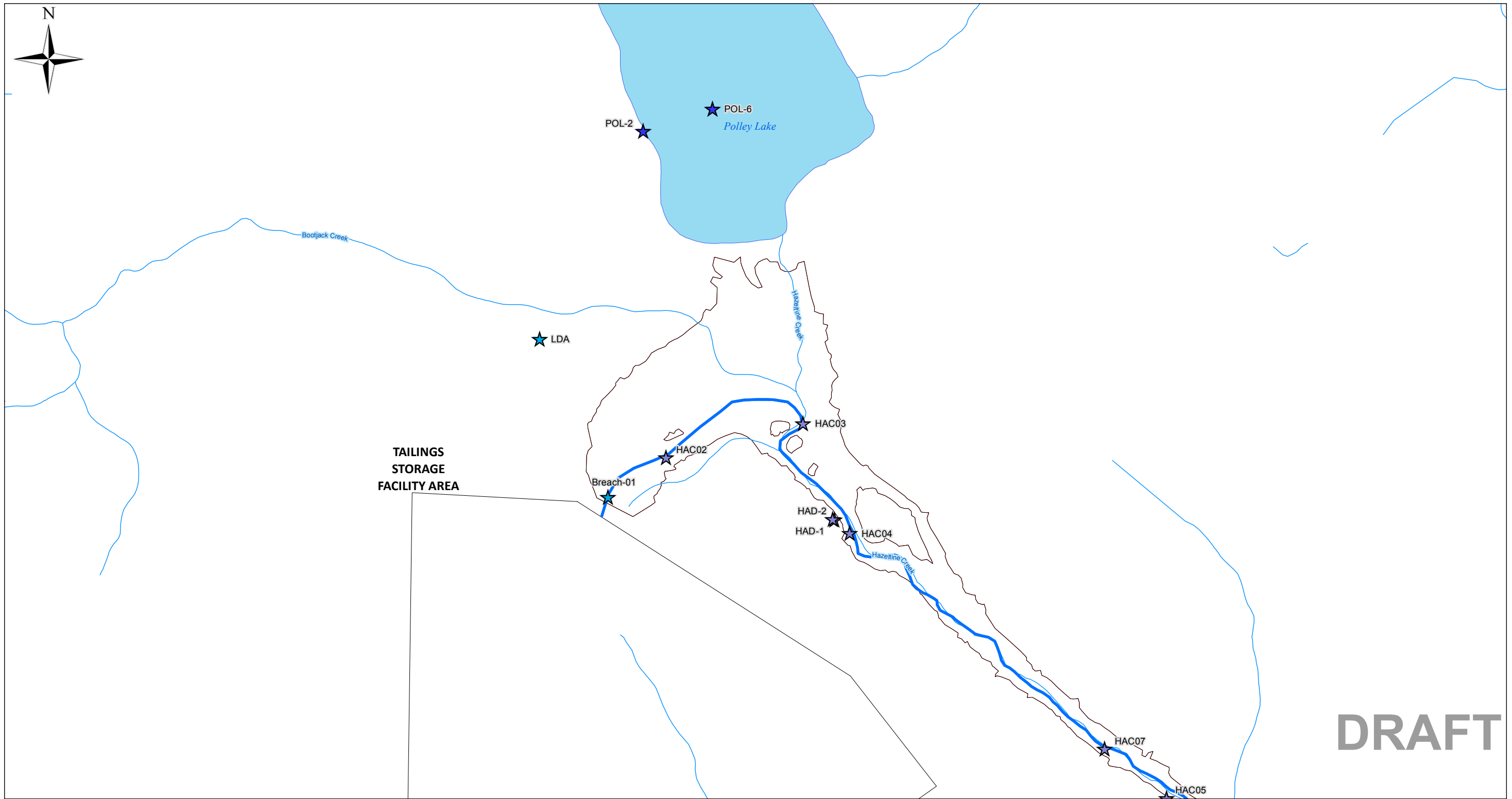
1. Data provided by Mount Polley Mining Corporation
2. Data downloaded from Data.Gov.BC.ca Data Distribution Service.
3. Orthophoto collected by McElhanney on August 5th, 2014



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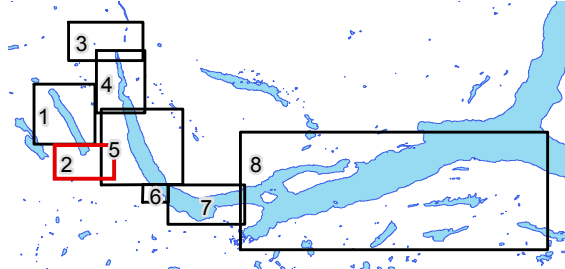
**Figure 5: Current Monitoring Locations**  
Page 1 of 8

BY: CJW	SCALE: 1:24,500	DATE: 2014/11/05	REF No: 621717-005-P1	REV: <b>7</b>
CHK'D: JL	PROJ COORD SYS: NAD 1983 UTM Zone 10N			



**LEGEND**

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

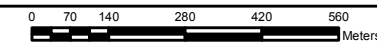


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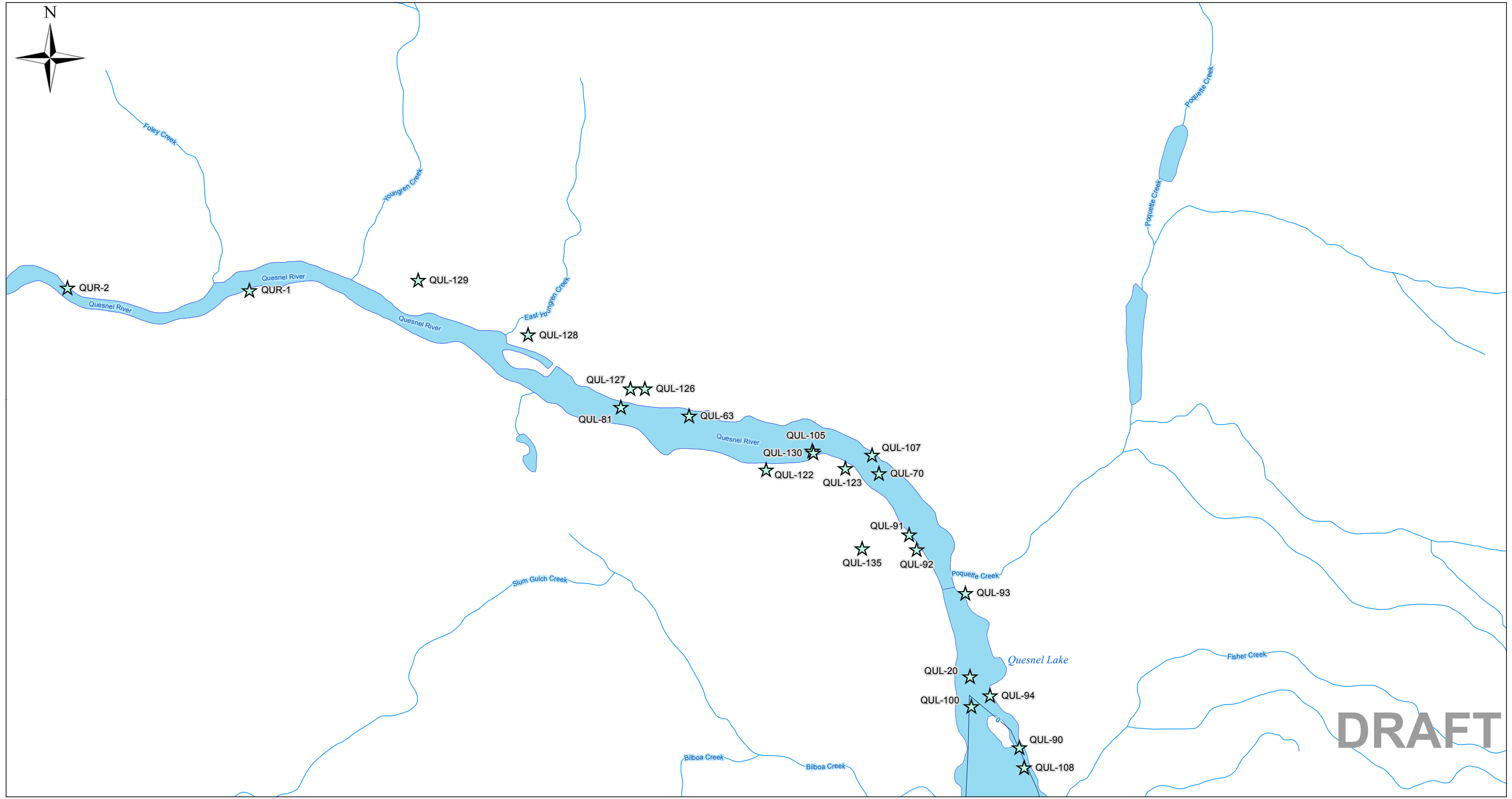


CLIENT NAME: MPMC	PROJECT LOCATION: Mount Polley Mine, British Columbia
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**Figure 5: Current Monitoring Locations**  
Page 2 of 8

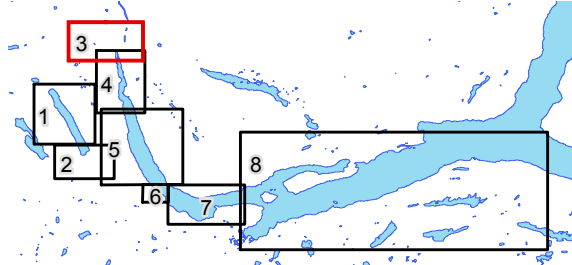
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**LEGEND**

- Surface Water Sampling Locations**
- ★ Hazeltine Creek
  - ★ Polley Lake
  - ★ Quesnel Lake
  - ★ Other Areas

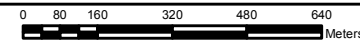


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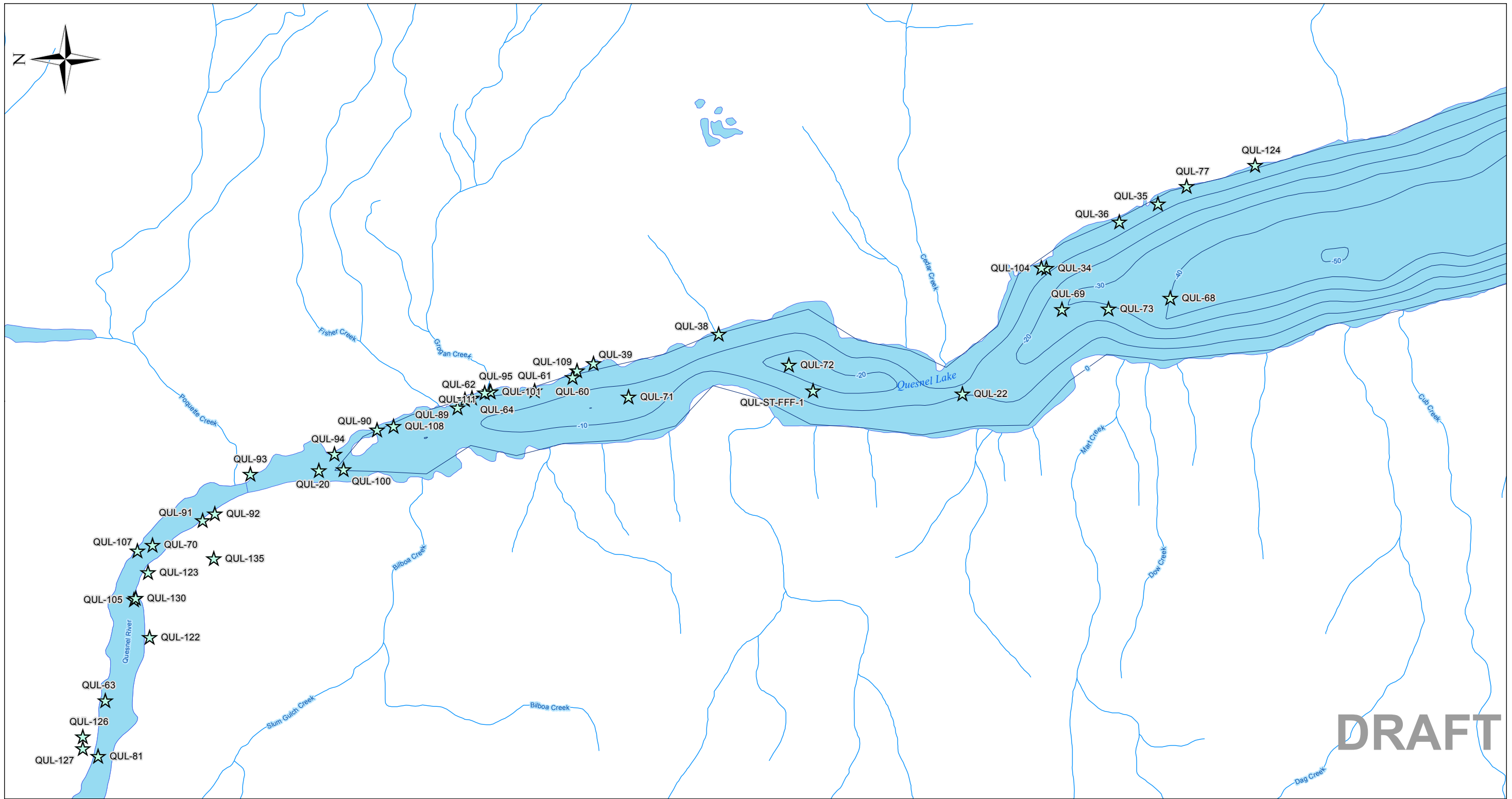
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CLIENT NAME: MPMC		PROJECT LOCATION: Mount Polley Mine, British Columbia	
<b>Figure 5: Current Monitoring Locations</b> Page 3 of 8			
BY: CJW	SCALE: 1:16,200	DATE: 2014/11/05	REF No: REV: <b>7</b>
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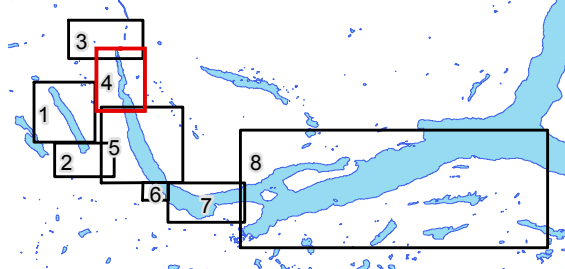




**LEGEND**

**Surface Water Sampling Locations**

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

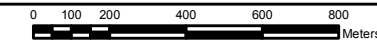


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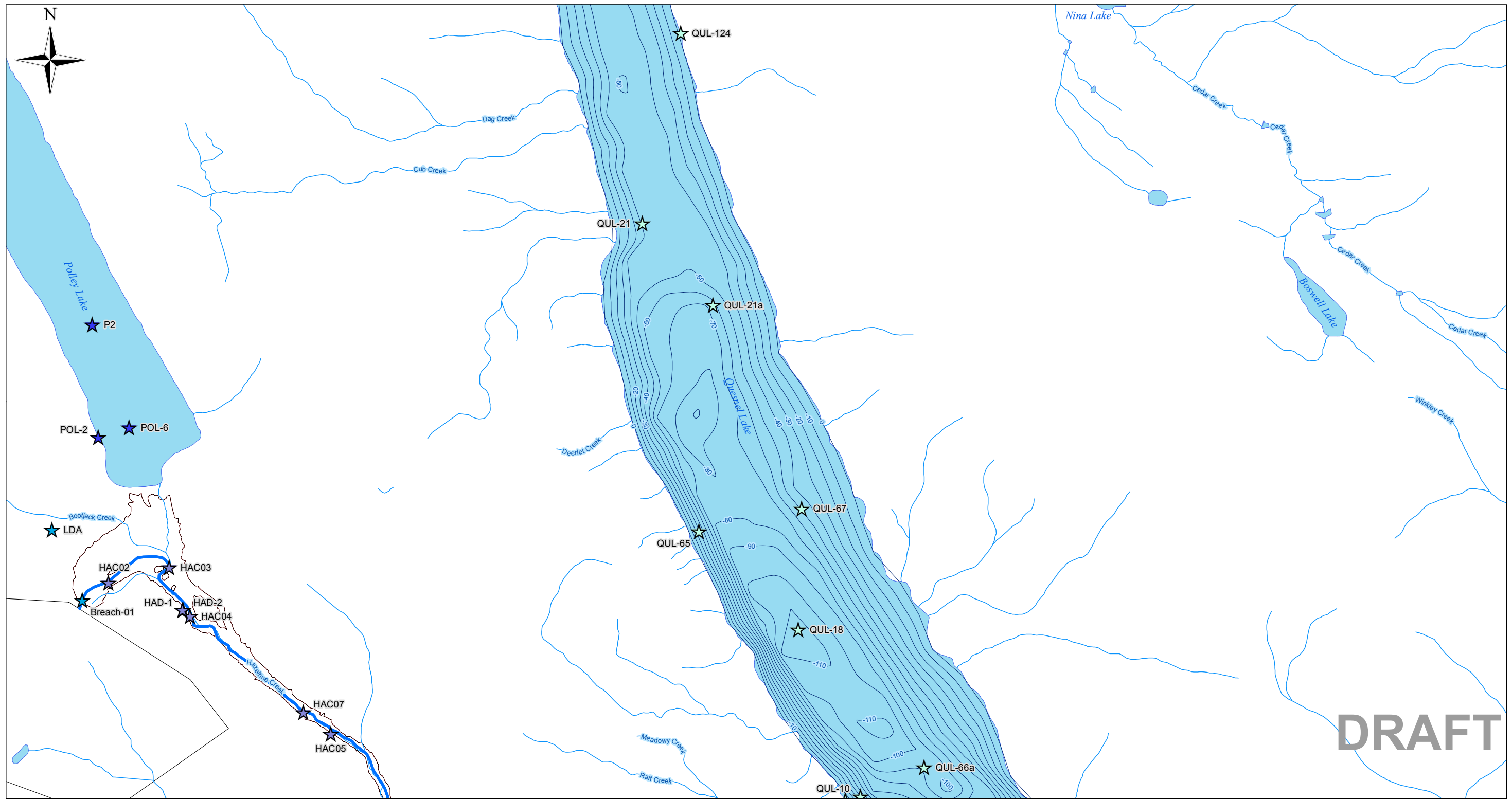
CLIENT NAME: MPMC	PROJECT LOCATION: Mount Polley Mine, British Columbia
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**Figure 5: Current Monitoring Locations**  
Page 4 of 8

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CHK'D: JL	PROJ COORD SYS: NAD 1983 UTM Zone 10N			

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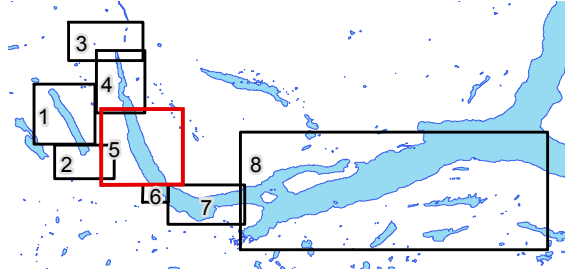
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**LEGEND**

**Surface Water Sampling Locations**

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

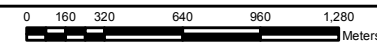


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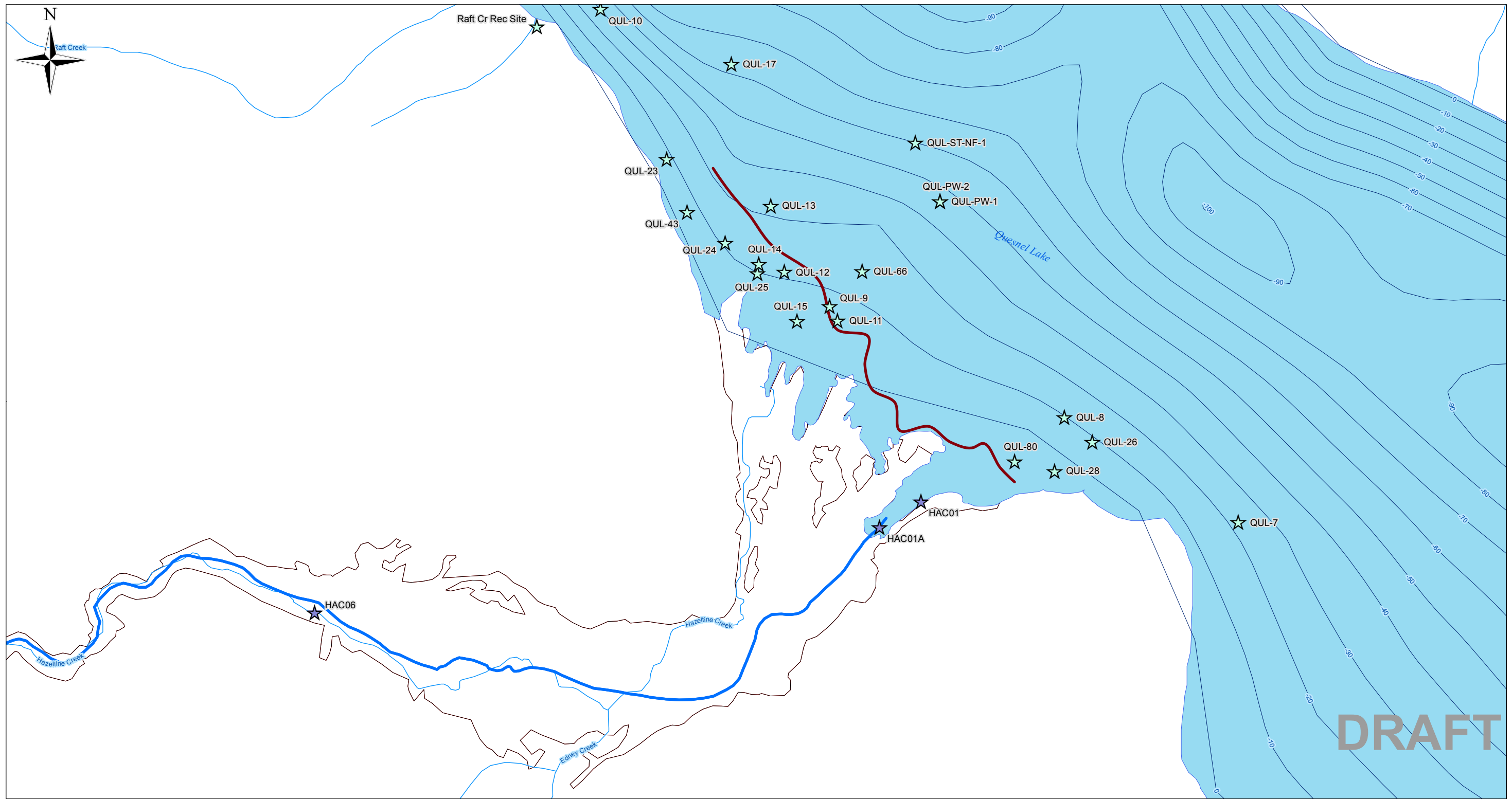


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**Figure 5: Current Monitoring Locations**  
Page 5 of 8

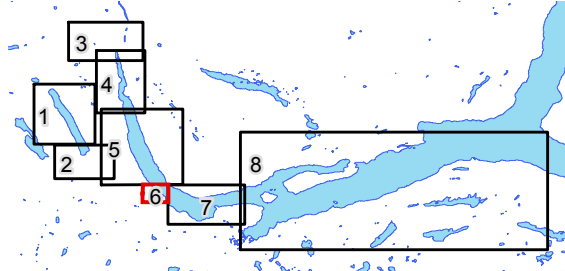
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**LEGEND**

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

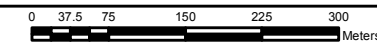


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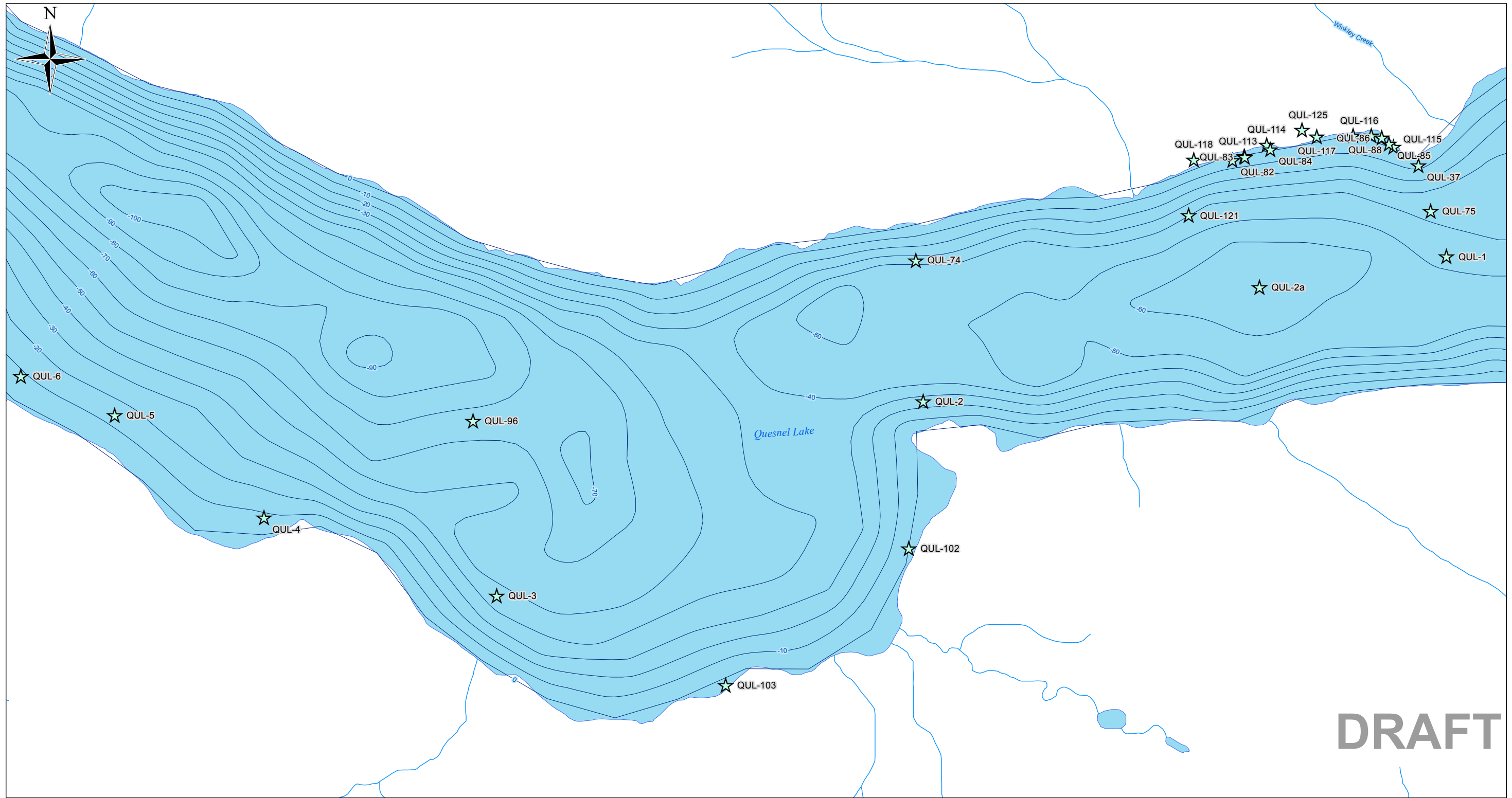


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**Figure 5: Current Monitoring Locations**  
Page 6 of 8

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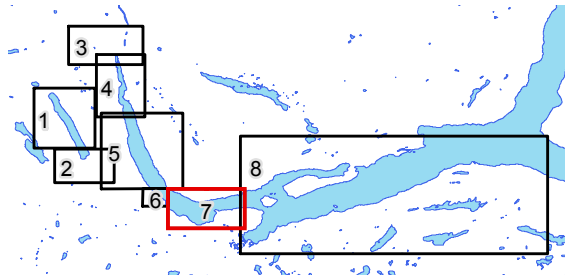
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**LEGEND**

**Surface Water Sampling Locations**

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

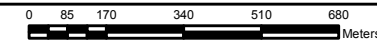


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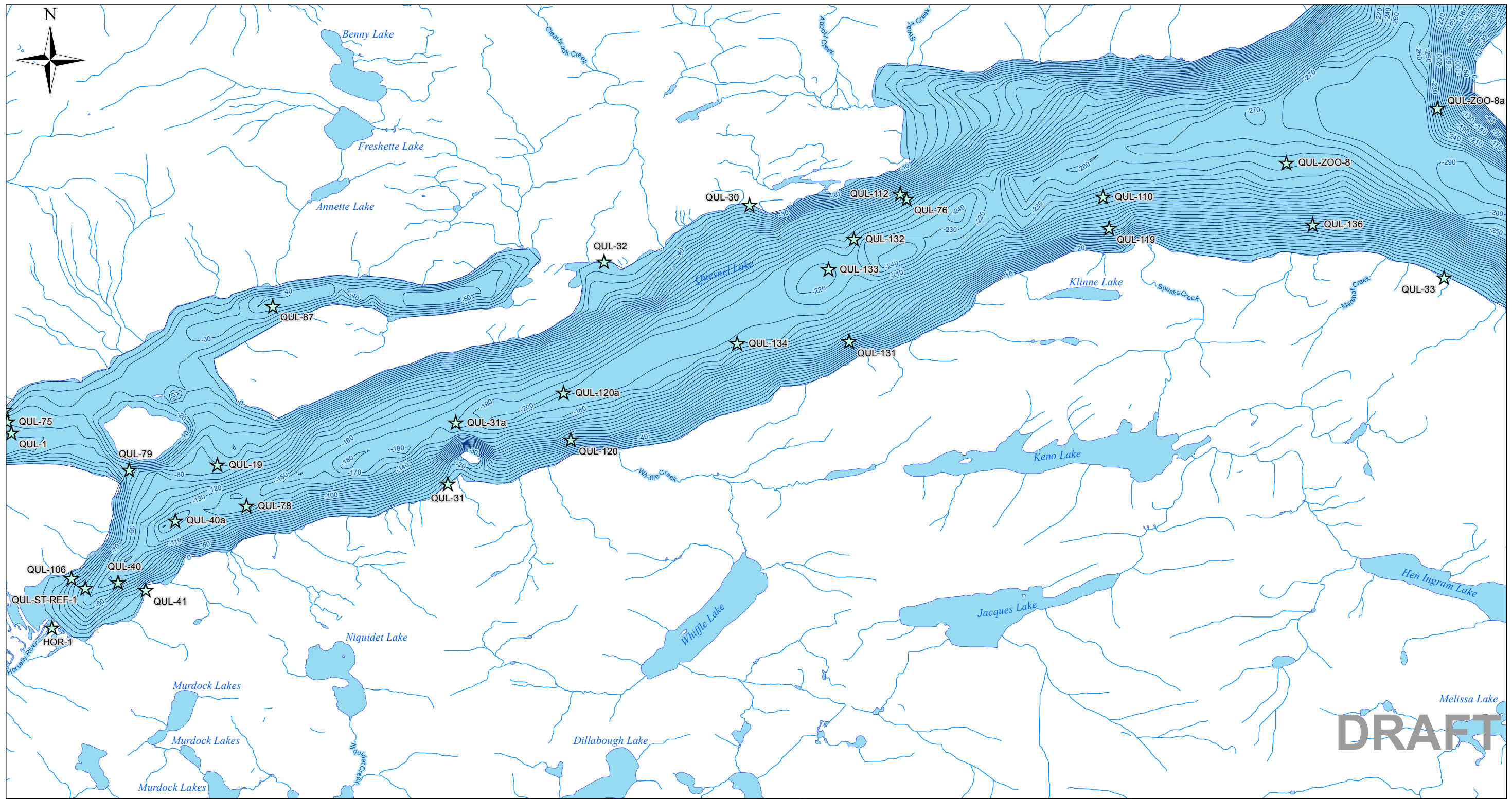
**Figure 5: Current Monitoring Locations**  
Page 7 of 8

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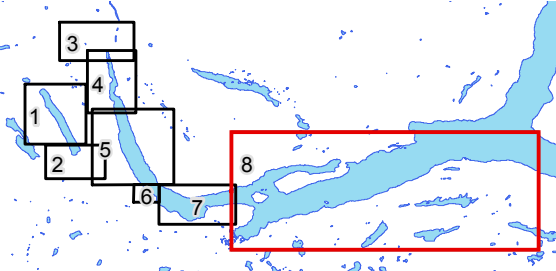




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**Surface Water Sampling Locations**

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

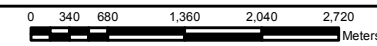


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**Figure 5: Current Monitoring Locations**  
Page 8 of 8

BY: CJW	SCALE: 1:66,800	DATE: 2014/11/05	REF No: 621717-005-P8	REV: <b>7</b>
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