

**YUKON WATER BOARD  
AMENDMENT OF LICENCE**

**LICENSEE:** MINTO EXPLORATIONS LTD.

**LICENCE:** QZ96-006

**AMENDMENT NUMBER:** 6

**APPLICATION NUMBER:** QZ09-089

Pursuant to the *Water Act*, Water Use Licence QZ96-006, as amended by amendments one, two, three, four and five is hereby further amended as follows:

**The following clauses are hereby withdrawn and replaced as follows:**

**PART I EMERGENCY DISCHARGE EVENT 2009**

- 88. The Licensee is hereby authorized for a controlled discharge up to a combined maximum of 705,000 m<sup>3</sup> from the Water Storage Pond ("WSP") and/or Pit effective immediately and shall cease on or before October 31, 2009.
- 89. The discharge authorized by clause 88 of this licence, shall, at a minimum, comply with the following effluent quality discharge standards:

Table 1: Effluent Quality Discharge Standards

Parameter	Maximum Authorized Concentration (mg/L)
Aluminum (Al) - Total	2.0
Aluminum (Al) - Dissolved	0.5
Ammonia	5.0
Arsenic (As) - Total	0.50
Copper (Cu) - Total	0.30
Iron (Fe) - Total	2.0
Lead (Pb) - Total	0.20
Nickel (Ni) - Total	0.50
Zinc (Zn) - Total	0.50
pH	6.0-9.5
Total Suspended Solids (TSS)	15.00
<i>Acute Toxicity Testing</i>	
96-h Rainbow Trout	Non Toxic (LT <sub>50</sub> , 100%)
48-h <i>Daphnia magna</i>	Non Toxic (LT <sub>50</sub> , 100%)

90. The points of compliance for the effluent quality discharge standards in clause 89 of this licence, shall be met at:
- the end-of-pipe discharge from the WSP and/or Pit siphon located at the downstream base of the WSP dam; and
  - at station W17, for any seepage from the WSP.
91. The Licensee shall discharge treated water from the WSP and or Pit to Minto Creek at a maximum combined rate of 10,000 m<sup>3</sup>/day. The controlled discharge shall be slowly ramped up to prevent scouring and erosion of the watercourse. The maximum rate of discharge shall be ramped down prior to completion of discharge, to prevent fish entrapment and mortality.
92. In the event that impacts to the watercourse from erosion or scouring are identified as a result of the controlled discharge authorized by this licence, the Licensee shall notify the Board and an Inspector in writing and undertake immediate remedial action to mitigate the impact.
93. The Licensee shall conduct a visual inspection of the downstream environment, prior to, during, and after discharge for potential erosion, scouring and stranding of fish. Any identified stranded fish shall be salvaged.
94. Prior to the discharge authorized by this licence, the Licensee shall provide to the Board:
- water quality on the effluent discharge from the WSP or Pit to ensure that it meets the discharge standards outlined in clause 89;
  - an interpretation of water quality, temperature and dissolved oxygen profiling to ensure the appropriate threshold values for dissolved oxygen and temperature (25 % saturation and 5°C respectively) are implemented;
  - details of the location, release volumes and schedule of release; and
  - anticipated start and end dates of releases.
95. The Licensee shall comply with the monitoring program as follows:

Table 2: Water Quality Monitoring During Discharge Events

Monitoring Location	Flow	pH	Temp.	Dissolved Oxygen	Turbidity	Conductivity	TSS	Nutrients	Total and Dissolved Metals
WSP and Pit Profile <sup>1</sup>	-	Daily	2x Daily	2x Daily	2x Daily	Daily	Weekly	Weekly	Weekly
Siphon Discharge to Minto Creek	Continuous	Daily	Daily	Daily	Daily	Daily	Daily	Weekly	Weekly
W3	Continuous	Daily	Daily	Daily	Daily	Daily	-Prior to discharge -Daily	Weekly	Weekly
W2	-	Daily	Daily	Daily	Daily	Daily	-Prior to discharge -Daily	Weekly	Weekly

1: - Profile depths for pH, temperature, dissolved oxygen, turbidity and conductivity is every 0.1m.  
 - Profile depths for TSS, nutrients and metals is -2m increments from the surface to the bottom of WSP and/or Pit

Table 3: Bioassay monitoring prior to discharge and during discharge

Monitoring Station	Acute Bioassay		Chronic Bioassay
	96-hr Rainbow Trout LT <sub>50</sub>	48-hr <i>Daphnia magna</i> LT <sub>50</sub>	7-d <i>Ceriodaphnia dubia</i>
Siphon Discharge to Minto Creek	-2-3 days after starting discharge -Monthly	-2-3 days after starting discharge -Monthly	-Monthly
W3	-2-3 days after starting discharge -Monthly	-2-3 days after starting discharge -Monthly	-Monthly
W2	-Monthly	-Monthly	-Monthly

96. The Licensee shall conduct sediment monitoring (in triplicate samples) at W2 within one week of the end discharge.
97. The Licensee shall provide to the Board, as part of the submission of the monthly water quality report, details and analysis of information required by Part I of this licence.
98. Within 14 days of the completion of discharge, the Licensee shall provide a comprehensive final written report including a detailed analysis of all data compiled to the Board that includes, but is not necessarily limited to, the information required in Part I of this licence including any details previously reported under clause 97.

Approved this 11 day of

August, 2009

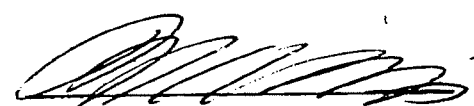
  
Witness

  
Minister, Executive Council Office

Issued this 11<sup>th</sup> day of

August, 2009

  
Witness

  
Bruce Willis, Chairperson  
YUKON WATER BOARD