

**YUKON WATER BOARD
AMENDMENT OF LICENCE**

LICENSEE: MINTO EXPLORATIONS LTD.

LICENCE: QZ96-006

AMENDMENT NUMBER: FIVE (5)

APPLICATION NUMBER: QZ09-085

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

The following clauses are hereby appended as follows:

PART I -EMERGENCY DISCHARGE EVENT 2009

88. The Licensee is hereby authorized for a controlled discharge up to a maximum of 300,000m³ from the Water Storage Pond (WSP) and/or Pit effective immediately for a maximum period of 45 days.

89. The discharge during this period of time shall, at a minimum, comply with the following effluent quality standard:

Parameter	Metal Mine Effluent Regulations (MMER) Effluent Quality Standard (mg/L)		
	Maximum Authorized Monthly Mean Concentration	Maximum Authorized Concentration and Composite Sample	Maximum Authorized Concentration in a Grab Sample
<i>Total Metals</i>			
Aluminum (Al)	N/A	N/A	N/A
Arsenic (As)	0.50	0.75	1.00
Copper (Cu)	0.30	0.45	0.60
Iron (Fe)	N/A	N/A	N/A
Lead (Pb)	0.20	0.30	0.40
Manganese (Mn)	N/A	N/A	N/A
Nickel (Ni)	0.50	0.75	1.00
Radium 226 (Ra)	0.37 Bq/L	0.74 Bq/L	1.11 Bq/L
Zinc (Zn)	0.50	0.75	1.00
<i>Physical Parameters</i>			
pH	6.0-9.5		
Total Suspended Solids (TSS)	15.00	22.50	30.00
<i>Acute Toxicity Testing</i>			
96-h Rainbow Trout	Non Toxic (LT ₅₀ , 100%)		
48-h <i>Daphnia magna</i>	Non Toxic (LT ₅₀ , 100%)		

Table 1: Effluent Discharge Standards (MMER)

90. For each phase of discharge, the Licensee shall ensure that the discharge will be carried out in such a way whereby the flow rate is slowly ramped up to prevent scouring and erosion of the watercourse, to the maximum proposed discharge rate of 10,000m³/day. Ramping down of the discharging flow rate shall occur to prevent entrapment and fish mortality.
91. The maximum quantity of water discharged, shall not exceed 10,000m³/day. If impacts to the watercourse from erosion or scouring are identified as a result of the discharge, mitigations shall be applied to rectify the impact.
92. The Licensee shall conduct a visual inspection of the downstream environment, prior to, during, and after discharge events for potential erosion, scouring and stranding of fish. Any identified stranded fish shall be salvaged.
93. 7 days prior to any discharge event authorized by this amendment, the Licensee shall provide to the Board:
- a) confirmatory water quality and toxicity testing on each effluent discharge event from the Water Storage Pond or Pit to ensure that it meets the discharge standard outlined in clause 89;
 - b) confirmatory and 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;
 - c) details of the location, release volumes and schedule of release; and
 - d) anticipated start and end dates of releases.
94. During a discharge event, profile monitoring of the Water Storage Pond or Pit shall occur four times daily during discharge, including profiling intervals for temperature and dissolved oxygen.
95. The Licensee shall comply with the monitoring program as follows:

Monitoring Location	Flow	pH	Temp.	Dissolved Oxygen	Turbidity	Conductivity	TSS	Nutrients	Total and Dissolved Metals
WSP and Pit Profile ¹	-	Daily	4x Daily	4x Daily	4x Daily	Daily	Weekly	Weekly	Weekly
Siphon Discharge	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

Table 2: Water Quality Monitoring during discharge events

	Acute Bioassay		Chronic Bioassay
Monitoring Station	96-hr Rainbow Trout LT ₅₀	48-hr <i>Daphnia magna</i> LT ₅₀	7-d <i>Ceriodaphnia dubia</i>
WSP and Pit Profile¹	-	-	-
Siphon Discharge	-2-3 days after starting discharge -Biweekly	-2-3 days after starting discharge -Biweekly	-Biweekly
W3	-2-3 days after starting discharge -Biweekly	-2-3 days after starting discharge -Biweekly	-Biweekly
W2	-Biweekly	-Biweekly	-Biweekly

Table 3: Bioassay monitoring prior to discharge and during discharge

- 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

96. The Licensee shall conduct sediment monitoring (in triplicate samples) at W2 within one week of the end of any discharge events.
97. Within 14 days of the completion of any discharge events, the Licensee shall provide a written report to the Board that includes, but is not necessarily limited to, the information required in clauses 92, 93, 94, 95 and 96.
98. The Licensee shall submit to the Board an updated water balance of the site and an updated Water Management Plan for the management of water including the spring freshet water of 2010 by July 31, 2009.

Approved this 26 day of

[Signature], 2009
[Signature]
Witness

[Signature]
Minister, Executive Council Office

Issued this 26 day of

[Signature], 2009
[Signature]
Witness

[Signature]
Bruce Willis, Chairperson
YUKON WATER BOARD