

## YUKON WATER BOARD

Pursuant to the *Waters Act* and *Regulation*, the Yukon Water Board, hereinafter referred to as the Board, hereby grants to

Deloitte & Touche Inc.  
(in its capacity as Interim Receiver of Anvil Range Mining Corporation)  
Suite 900 79 Wellington Street West  
Toronto, ON M5K 1B9

hereinafter called the Licensee, the right to use water and deposit a waste subject to the restrictions and conditions contained in the *Waters Act* and *Regulation* made thereunder and subject to and in accordance with the conditions specified in this licence.

**Licence Number:** QZ03-058

**Water Management Area:** 02 Yukon

**Licence Type:** A

**Nature of Undertaking:** Quartz Mining

**Location:** South Fork of Rose Creek

**Tributary of:** Anvil Creek and Pelly River

**Latitude:** 62° 19' 21" N      **Longitude:** 133° 21' 00" W

**Purpose:** To divert and alter a flow of water, modify the bed and banks of a watercourse and deposit a waste.

**Effective Date of Licence:** The date that the signature of the Minister of the Executive Council Office is affixed.

**Expiry Date of Licence:** December 31, 2008

## PART A - GENERAL CONDITIONS

### 1. Definitions

- a) "Act" means the *Waters Act* and any amendments thereto.
- b) "Application" collectively means Water Use Application QZ03-058 and any additional submissions and/or revisions submitted to the Board by the Licensee up to the date of the Board's decision to issue this licence.
- c) "Board" means the Yukon Water Board.
- d) "Inspector" means any person designated as an inspector under the *Act*.
- e) "Regulation" means the *Waters Regulation*.
- f) "Waste" means any substance defined in Section 2 of the *Act*.

### Representations, Warranties and Undertakings

2. The Board has relied on the representations, warranties and undertakings provided by the Licensee in the material filed in the Application. Such representations, warranties and undertakings are considered by the Board to be a part of the licence, but shall be subject to, and may be modified by, the conditions of the licence.
3. Where there is a discrepancy between the Application and the conditions of this licence, the conditions of this licence shall prevail.

### Other Uses

4. If, subsequent to the issuing of this licence, the Licensee uses water and/or deposits waste in one or more ways not authorized in this licence, and the combined effect of those uses and/or deposits of wastes, as determined by an Inspector:
  - a) has no potential for significant adverse environmental effects;
  - b) does not interfere with existing rights of other water users or waste depositors; and
  - c) satisfies the criteria set out in column 2 of Schedule 7 of the *Regulation*,

then no amendment to this licence will be required for that use of water and/or deposit of waste.

### Other Laws

5. No condition of this licence limits the application of any other federal, territorial, first nation or municipal legislation.

6. All work authorized by this licence shall occur on property that the Licensee has the right to enter upon and use for that purpose.

Correspondence

7. Where any direction, notice, order, or report under this licence is required to be in writing, it shall be given:

- a) To the Licensee, if delivered, faxed or mailed by registered mail to the following address:

Deloitte & Touche Inc.  
Suite 900, 79 Wellington Street West  
Toronto, ON M5K 1B9  
Fax: (416) 601-6390

and shall be deemed to have been given to the Licensee on the day it was delivered or faxed, or seven days after the day it was mailed, as the case may be.

- b) To the Board, if delivered, faxed or sent by registered mail to the following address:

Yukon Water Board  
Suite 106, 419 Range Road  
Whitehorse, Yukon Y1A 3V1  
Fax: (867) 456-3890

and shall be deemed to have been given to the Board on the day it was delivered or faxed, or seven days after the day it was mailed, as the case may be.

Non-Compliance

8. In the event that the Licensee fails to comply with any condition of this licence, the Board may, subject to the *Act*, cancel the licence.

Deleterious Substances

9. Subject to the conditions of this licence, deleterious substances shall be used, transported, stored and disposed of in such a manner that they are not deposited in, or allowed to be deposited in, any waters.

Term of Licence

10. The term of this licence is from the Effective Date to December 31, 2008.

### Reports

11. All monitoring data, reports, plans, designs or manuals required by this licence shall be submitted to the Board in an unbound printed form that is reproducible by standard photocopier and shall be accompanied by five copies.
12. All monitoring data, reports, plans, designs or manuals shall also be submitted in digital form, using an IBM compatible format that is readable using commonly available software.

### Annual Reports

13. Annual reports shall be submitted to the Board by the Licensee. The reports shall cover the period from January 1 to December 31 of each year and shall be submitted to the Board on or before February 28 of the following year.
14. Annual reports shall include the information required by this licence and by the *Regulation*, including, but not necessarily limited to, summaries of all data generated as a result of the monitoring requirements of this licence, including analysis and interpretation by a qualified individual or firm and a discussion of any variances from base line conditions or from previous years' data.

### Monthly Reports

15. Unless otherwise specified in this licence, the Licensee shall forward to the Board a copy of all data collected as part of the monitoring programs of this licence. The data shall be forwarded to the Board no more than thirty days after the conclusion of the month in which that data was collected.

### Spills and Unauthorized Discharges

16. No later than ten days after the Effective Date of this licence, the Licensee shall submit to the Board a spill contingency plan. The Licensee shall keep the spill contingency plan current and shall submit any revisions to the plan to the Board within ten days of the revision.
17. The Licensee shall immediately contact the 24-hour Yukon Spill Report telephone number (867) 667-7244 and implement the most recent spill contingency plan that has been filed with the Board, should a spill or an unauthorized discharge occur. A detailed written report on any such event, including but not limited to, dates, quantities, parameters, causes and other relevant details and explanations, shall be delivered to the Board not later than ten days after its occurrence.

Hazardous Materials Storage

18. A complete inventory of chemicals, fuels, oils, lubricants and other hazardous materials relating to the water uses authorized by this licence shall be maintained by the Licensee.
19. Hazardous materials, except for those required to operate and maintain equipment relating to the water uses authorized by this licence, shall be stored or transferred a minimum of thirty metres from any watercourse.

**PART B - OPERATING CONDITIONS**

20. Subject to the terms of this licence, the Licensee is hereby authorized to:
  - a) alter the flow of the South Fork of Rose Creek by breaching the existing freshwater supply dam; and
  - b) modify the existing freshwater supply channel from the low level outlet to the confluence of the freshwater supply channel and the breach channel downstream of the freshwater supply dam; and
  - c) temporarily divert the flow of the South Fork of Rose Creek during the construction of the dam breach and channel; and
  - d) divert the flow of the South Fork of Rose Creek into the constructed channel; and
  - e) deposit Waste in the form of sediment into the South Fork of Rose Creek; and
  - f) deposit Waste in the form of runoff from potentially acid generating material storage areas,

all as described in the Application, and subject to the terms and conditions of this licence. Where there is a discrepancy between the Application and this licence, the terms of this licence shall prevail.

21. Except as authorized by this licence, no Waste shall enter any watercourse as a result of any operation carried out by the Licensee.
22. A continuous flow of water shall be maintained in the South Fork of Rose Creek during the construction of the works authorized by this licence.
23. Potentially acid generating materials excavated during the course of any work authorized by this licence shall be segregated and placed in area(s) where runoff can be collected tested and treated as necessary.

### **PART C - EFFLUENT QUALITY STANDARDS**

24. During the construction of the breach in the freshwater supply dam, water released from the construction site to the freshwater channel downstream of the freshwater supply dam shall not contain Total Suspended Solids concentrations in excess of 25 mg/L above the level of Total Suspended Solids measured immediately upstream of the freshwater supply dam.
25. Runoff from potentially acid generating material storage areas shall not contain concentrations of parameters in excess of the following limits, based on a grab sample:

<b>Parameter</b>	<b>Maximum Concentration (mg/L)</b>
Total Antimony (Sb)	0.10
Total Arsenic (As)	0.05
Total Barium (Ba)	1.00
Total Cadmium (Cd)	0.02
Total Copper (Cu)	0.20
Total Lead (Pb)	0.20
Total Mercury (Hg)	0.005
Total Molybdenum (Mo)	0.50
Total Nickel (Ni)	0.50
Total Selenium (Se)	0.05
Total Silver (Ag)	0.10
Total Zinc (Zn)	0.50

### **PART D - DESIGN, CONSTRUCTION AND MAINTENANCE**

26. Prior to the commencement of construction of the breach in the freshwater supply dam, the Licensee shall submit to the Board final detailed design construction drawings, specifications, quality assurance/quality control procedures and/or operating procedures for the work. All such submissions shall be sealed by a Professional Engineer licensed to practice in Yukon.
27. All work shall be carried out in accordance with the requirements of the Environmental Management Plan submitted with the Application. Any revisions to the Environmental Management Plan shall be submitted to the Board within ten days of the revision.

28. At least ten days prior to the proposed date of commencement of the breaching of the freshwater supply dam, the Licensee shall submit to the Board a written notification, together with a detailed construction schedule and the name and contact number(s) of the construction superintendent.
29. During construction, where site conditions require minor design modifications to the breach or related works authorized by this licence, the Licensee shall notify the Board, in advance, of the details of the modifications or variations from final detailed designs, specifications and quality assurance/quality control procedures previously submitted to the Board. The notice shall include an explanation of the reasons for the change and an assessment of the potential impact on the performance of the works. The notice shall be sealed by a Professional Engineer licensed to practice in Yukon.
30. Following the completion of construction, all disturbed areas and the dewatered areas of the fresh water supply reservoir shall be revegetated as described in the Application.
31. As-constructed (record) drawings and construction reports, including quality assurance and quality control documentation, for all structures and facilities shall be submitted to the Board within ninety days of the completion of construction. Each submission shall be sealed by a Professional Engineer licensed to practice in Yukon.
32. Throughout the term of this licence, the Licensee shall maintain all works in good order in accordance with sound engineering and environmental practices.

**PART E - MONITORING AND SURVEILLANCE**

33. The Licensee shall comply with the following monitoring program:

a) LOCATIONS OF MONITORING STATIONS

<b>Station</b>	<b>Description</b>
FWSD-1	South Fork of Rose Creek at the Gun Club access road.
FWSD-2	South Fork of Rose Creek immediately upstream of the freshwater supply dam.
FWSD-3	Discharge of water from construction site.
FWSD-4	Freshwater supply channel immediately downstream of the freshwater dam breach.
FWSD-5	South Fork of Rose Creek immediately downstream of the confluence of the freshwater supply channel.
FWSD-6.	Runoff from potentially acid generating material disposal areas. This could be more than one location

b) SAMPLING LOCATIONS AND PARAMETERS

Monitoring Location/Parameter	FWSD-1	FWSD-2	FWSD-3	FWSD-4	FWSD-5	FWSD-6
Flow (m <sup>3</sup> /s)	M				M	
Temperature (°C)						A
pH						A
Total Suspended Solids (mg/L)	D, M	D	D	D	D, M	A
Total Dissolved Solids (mg/L)						A
Sulphate (mg/L)						A
Conductivity (µmhos/cm)						A
Alkalinity						A
Hardness						A
ICP Total Metals Scan, including Sb, As, Ba, Cd, Cu, Pb, Hg, Mo, Ni, Se, Ag, Zn (ppm)						A

c) SAMPLING FREQUENCIES/NOTES

Key	Frequency
A	Annually.
D	Daily during construction activities.
D, M	Daily during construction activities, otherwise twice per month during the period of April to August, inclusive. Measurements to be made concurrently for each parameter identified.

34. The Licensee shall conduct an annual inspection and assessment of the performance of the dam breach and the constructed channel downstream of the fresh water supply dam. A report on the inspection and assessment, sealed by a Professional Engineer licensed to practice in Yukon, shall be submitted to the Board as part of the Annual Report. The report shall contain recommendations regarding any proposed modifications to the breach, channel or related works.
35. The Licensee shall carry out an annual inspection and assessment of the success of revegetation activities and shall submit a report on the inspection and assessment to the Board as part of the Annual Report. The report shall contain recommendations regarding any proposed remedial actions.

36. All data collection and analysis shall be conducted in accordance with the current edition of Standard Methods for the Examination of Water and Waste Water, prepared and published jointly by the American Water Works Association and the Water Pollution Control Federation.

**Approved**

This \_\_\_\_ day of  
\_\_\_\_\_, 2003

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Witness

\_\_\_\_\_  
Minister, Executive Council Office

**Issued by the Yukon Water Board**

This \_\_ day of  
\_\_\_\_\_, 2003

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Vice Chairperson