

*Binder Copy*

**AN ORDER OF THE CLEAN ENVIRONMENT COMMISSION  
UNDER THE CLEAN ENVIRONMENT ACT**

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RE: THE CLEAN ENVIRONMENT COMMISSION and TANTALUM MINING CORPORATION OF CANADA LIMITED, Applicant,

- WHEREAS pursuant to the provisions of The Clean Environment Act, on the 10th day of October, 1972, the Tantalum Mining Corporation of Canada Limited submitted an application to The Clean Environment Commission to prescribe limits in connection with the operation of a Mine-Mill Complex located in Section 15, Township 17, Range 15 EPM with discharge of effluent into Bernic Lake in Manitoba;
- AND WHEREAS the Commission issued Order No. 396 on the 21st day of October, 1974, prescribing limits on the discharge or deposit of contaminants from the said operation;
- AND WHEREAS the Applicant filed proposals with the department for alterations to the said operation:
- (a) on the 28th day of January, 1980, in connection with the expansion of mill capacity from 163,260 tonnes to 226,750 tonnes per year;
  - (b) on the 18th day of March, 1982, in connection with the construction of a spodumene concentration pilot plant and construction of a dam to provide an impoundment for spodumene tailings in the North Bay of Bernic Lake;
- AND WHEREAS in the absence of limits, terms and conditions prescribed by a regulation under the said Act, the proposals were referred to the Commission to prescribe limits, terms and conditions;
- AND WHEREAS after giving notice of the alterations to the said operation and of its intention to consider rescinding the said order, the Commission did not receive notice of representation from any person likely to be affected by an order of the Commission issued in connection with the matter;
- AND WHEREAS the Commission considered the proposals on the 24th day of January, 1983;

IT IS HEREBY ORDERED THAT

1. The Applicant shall not discharge effluent from the final discharge point where:

*Assigned  
to  
WBC  
Feb 7/83*

1. (a) the concentrations of total suspended matter in the effluent are in excess of the corresponding maximum concentrations shown for those categories listed under columns I, II, and III of the following table:

Column I	Column II	Column III
Maximum Monthly Arithmetic Mean Concentration	Maximum Concentration In A Composite Sample	Maximum Concentration In A Grab Sample
25.0 mg/L	37.5 mg/L	50.0 mg/L

- (b) the pH of the effluent is below the minimum allowable values shown for those categories listed under columns I, II, and III of the following table:

Column I	Column II	Column III
Minimum Monthly Arithmetic Mean pH	Minimum pH In A Composite Sample	Minimum pH In A Grab Sample
6.0	5.5	5.0

- (c) the pH of the effluent is above the maximum allowable values shown for those categories listed under columns I, II, and III of the following table:

Column I	Column II	Column III
Maximum Monthly Arithmetic Mean pH	Maximum pH In A Composite Sample	Maximum pH In A Grab Sample
8.5	9.0	9.5

2. Subject to 3, the Applicant shall:

- (a) sample and analyze the effluent discharged at the final discharge point for total suspended matter at no less a frequency than that specified in the table below whereby the applicability of columns I, II, III, and IV shall be determined on the basis of the arithmetic mean concentration of the total suspended matter in the samples of effluent collected and reported in those preceding six months during which effluent discharge occurred:

2. (a) Column I	Column II	Column III	Column IV
At Least Weekly If Concentration Is Equal To Or Greater Than	At Least Every Two Weeks If Concentration Is Equal To Or Greater Than	At Least Monthly If Concentration Is Equal To Or Greater Than	At Least Every Six Months If Concentration Is Less Than
25.0 mg/L	20.0 mg/L	15.0 mg/L	15.0 mg/L

(b) sample and analyze the effluent discharged at the final discharge point for pH not less frequently than:

(i) once a week, where the pH of the effluent was less than 5.0 or more than 9.5 at any time in those preceding six months during which discharge of effluent occurred;

(ii) once every two weeks, where the pH of the effluent was between 5.0 and 5.5 or between 9.0 and 9.5 at any time in those preceding six months during which effluent discharge occurred;

(iii) once a month if (i) and (ii) do not apply.

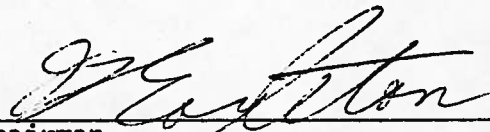
3. The Applicant shall sample and analyze the effluent discharged from the final discharge point for such additional parameters and characteristics and at such frequencies and duration of time as are specified from time to time by the Commission.
4. The Applicant shall measure the total monthly volume of effluent discharged at the final discharge point by a method of measurement or estimation satisfactory to the Environmental Management Division.
5. The Applicant shall submit the data of the analyses and measurements carried out pursuant to 2, 3, and 4 to the Environmental Management Division within 30 days of the end of the month in which measurements and samples were taken.
6. In the event the Commission deems it advisable to establish the effectiveness of any segment or component of the wastewater treatment system of the said operation, or to have specific areas of concern investigated, the Applicant shall submit to the Commission such engineering studies, drawings, specifications, analyses of wastewater streams and other information likely to be relevant as are requested in writing from time to time by the Commission.

7. With the exception of waste rock and mill tailings, the Applicant shall not dispose of solid waste or bulky metallic waste, as defined in regulations issued under the said Act, except in waste disposal grounds registered in accordance with the said regulations.
8. (a) In the event of an imminent cessation of the said operation, the Applicant shall forthwith file with the Commission a firm and detailed rehabilitation plan, to replace the preliminary rehabilitation scheme filed under date of the 20th October, 1975, pursuant to Commission Order No. 396, for consideration, possible amendment, and approval, or otherwise by the Commission.  
  
(b) Upon termination of the said operation, the Applicant shall take all steps necessary to carry out the detailed rehabilitation plan approved pursuant to 8(a) within a time frame agreed by the Commission.
9. This order replaces Order No. 396 which shall be and is hereby rescinded.
10. In this order:
  - (a) "effluent" includes mine water effluent, mill process effluent, tailings impoundment area effluent, treatment pond and treatment facility effluent, seepage and surface area drainage;
  - (b) "final discharge point" means the outflow channel at the south end of the West Dam, as shown on the drawing attached as Appendix "A" to this order, unless otherwise designated by the Commission in writing to reflect a change in the wastewater treatment or tailings disposal system;
  - (c) "monthly arithmetic mean" for a substance means the average value of the concentrations of such substance determined from all the composite or grab samples collected and reported during that month with the exception that, if the Applicant collects only one composite or grab sample during a month, the single set of analysis results shall be construed as being representative of the effluent quality for that month and shall be treated as the monthly arithmetic mean;

10. (c) "composite sample" means a quantity of effluent consisting of a minimum of 3 equal volumes of effluent collected at approximately equal time intervals over a sampling period of not less than 7 hours and not more than 24 hours or consisting of effluent collected continuously at an equal rate over a sampling period of not less than 7 hours and not more than 24 hours.

Order No. 973

Dated at the City of Winnipeg  
this 7th day of February, 1983.

  
Chairman,  
The Clean Environment Commission.

File: 1906.2

Access  
Road

Appendix "A" to  
Order No. 973

W.D.G. Trail

North  
Dam

North  
Arm

West  
Dam  
Outflow  
Channel

East  
Dam

Trail

Proposed  
Dam

Tailings

Mine

Main  
Dam

BERNIC LAKE

