

DECISION

LICENCE NUMBER: NWB1BOS9801

This is the decision of the Nunavut Water Board (NWB) with respect to an application for amendment to Licence NWB2BOS9801 dated October 7, 1998 by:

BHP Diamonds Ltd.

for prospecting, continued surface drilling, core-splitting and logging on site, underground drilling, operation of the bulk sample plant, domestic use and associated activities, environmental baseline data collection, demobilization of equipment and potentially future underground bulk sampling.

DECISION

After having been satisfied that the application for amendments did not require screening pursuant to Article 12 of the Nunavut Land Claims Agreement, the NWB decided that the application could proceed, with the exception of the issue of the financial assurance and solid waste disposal which will be the object of separate hearings. After reviewing the submission of the Applicant, the NWB, having given due regard to the facts and circumstances, to the purpose, scope and intent of the Nunavut Land Claims Agreement, determined that:

Licence Number NWB1BOS9801 be amended subject to the terms and conditions contained therein.

SIGNED this day 2nd day of December, 1998 at Yellowknife, NT.

Thomas Kudloo
Chairperson

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I. INTRODUCTION

The Licensee, BHP Diamonds Inc., filed an application for amendment to license NWB1BOS9801 dated October 7, 1998 to the Nunavut Water Board. The NWB issued Licence NWB1BOS9801 on July 31, 1998 for water use and waste disposal associated with continued surface drilling, core-splitting and logging, environmental baseline data collection, demobilization of equipment and underground bulk sampling.

The Licensee's amendment request can be separated in four classes, essentially.

- (1) With respect to the **security deposit**, the Licensee questions:
 - 1) Whether the security deposit should be used to cover remediation of problems resulting from ongoing operations, as well as for abandonment and restoration;
 - 2) What criteria the NWB should choose in determining the amount of the security deposit;
 - 3) Whether the Board should determine the amount of security after it issues the Licence; and
 - 4) Whether the Board has authority to decide when to apply the security.
- (2) With respect to **water use**, the Licensee requests the deletion of Part C, Item 5 pertaining to potable water quality.
- (3) On the issue of **waste disposal**, the Licensee requests modification to the first condition, and deletion of the following three conditions:
 - 1) Effluent quality standards at SNP station 1652-5 should be relaxed in light of new hydrological information presented by the Licensee (Part D, Item 4);
 - 2) The Licensee shall dispose of all solid waste at the Solid Waste Disposal Facilities or as otherwise approved by the Board (Part C, Item 5);
 - 3) All scrap metal, discarded machinery and parts, and other bulky material shall be disposed of in an approved disposal site (Part E, Item 3);
 - 4) The Licensee shall not bury any scrap metal and other bulky wastes (Part E, Item 5).
- (4) minor amendments, clarifications, changes to the Surveillance Network Program, and corrections.

In accordance with the *Nunavut Land Claims Agreement*, Article 13, Section 13.7.2, the NWB shall hold a public hearing before approving any application, including amendments to an existing licence.

The NWB may, where there is no public concern expressed, waive the requirement for a public hearing. Notice of the application for amendments was posted in the News/North newspaper. At its sitting of December 2, 1998, the NWB, the Board decided:

- (1) On the issue of the security deposit, to hold a public hearing pursuant to Article 13 of the Nunavut Land Claims Agreement.

- (2) On the issue of guidelines respecting drinking water quality, (Part C, Item 5), to conduct a written hearing from which the Board will seek input from BHP Diamonds Inc. as well as potentially affected parties.
- (3) For amendments regarding solid waste disposal (Part D, Item 5; Part E, Items 3 and 5), to conduct a written hearing from which the Board will seek input from BHP Diamonds Inc. as well as potentially affected parties.
- (4) For minor amendments, clarifications, changes to the Surveillance Network Program, and corrections, to process these summarily and amend licence NWB1BOS9801 immediately, including change to the name of the Licensee to BHP Diamonds Inc. to reflect the recent merger.

II. REASONS FOR DECISION

A. Scope of the Licence

The Licensee requested to expand the scope of the licence to include **prospecting, underground drilling, operation of the bulk sample plant, domestic use and associated activities**. The scope of these additional activities do not have any significant effect on the water use and waste disposal activities already authorized, and the Board has no objection to this request.

B. Conditions Applying to Water Use (Part C, Item 5)

The Board decides to maintain this condition until a final decision can be reached following a written hearing.

C. Effluent Quality (Part D, Item 4)

In light of the 0.7 to 1.2 year exchange time for water in Spyder Lake, the Licensee requested that the maximum average concentrations (MAC) of the effluent be lowered. Instead of a residence time of more than 5 years, which the Board had used to base the discharge parameters in the original licence, the Licensee proposes to the Board to use a residence time of less than 5 years. The Licensee also requested that the Board drop the requirement to meet **Faecal Coliforms** limits set at 10^3 in the licence, and to modify the **Grease and Oil** requirement to a visual presence. In light of the hydrological information presented by the Licensee in its October 7, 1998 letter, the Board agrees to decrease limits for BOD₅ and TSS, and to change the level for Oil and Grease from 5.0 mg/L to a visual presence only. However, the Board does not agree to drop Faecal Coliforms, but agrees to increase the limits for this parameter from 10^3 to 10^4 to reflect change of residence time in Spyder Lake. The Board believes that the Licensee should be able to meet the limit for Faecal Coliforms without the need for additional disinfection.

D. Solid Waste (Part D, Item 5)

The Board decides to maintain this condition until a final decision can be reached following a written hearing.

E. Scrap Metals and Bulky Wastes (Part E, Items 3 and 5)

The Board decides to maintain this condition until a final decision can be reached following a written hearing.

F. Security Deposit (Part B, Item 2 b and c, and Part B, Item 3)

The provisions of Licence NWB1BOS9801 referring to security deposits being the object of the request for amendment are:

In General Consideration: Item B:

“Security deposits are funds which are set aside for site restoration after closure, whereas performance bonds are generally used for remedial activities in case of contamination during the operation. In this case, the NWB believes that it is appropriate to allow the security deposit to be used for both purposes.

The NWB has concluded that it is necessary and appropriate to adopt the principle of full recovery as the basis for establishing the amount of the security deposit required from licensees. The Board may fix the amount of security required to be furnished by the applicant in an amount not exceeding the aggregate of the costs of:

- a. Abandonment of the undertaking;*
- b. Restoration of the site of the undertaking; and*
- c. Any ongoing measures that may remain to be taken after the abandonment of the undertaking.*

In fixing an amount of security, the Board may have regard to:

- a. The ability of the applicant, licensee or prospective assignee to pay the costs referred to in that subsection; and*
- b. The past performance by the applicant, licensee or prospective assignee in respect of expired licences or any other licence or approval.*

To ensure that the Crown will bear no costs for proper abandonment and restoration and long term monitoring after closure of the mine, the Board will perform an

independent security analysis to determine the amount which would provide adequate guaranty. The Board will complete its assessment within sixty (60) days of issuance of the licence and expects the licensee to furnish the security deposit within (30) days after receiving notification of the Board's decision."

In **Part B, Item 2 b and c, and Part B, Item 3** of the Licence (italic added):

2. "The Licensee shall have posted and shall maintain a security deposit according to the following schedule:
 - a. within thirty (30) days of issuance of this licence, an amount of \$20,000.00 dollars;
 - b. Such further amounts as may be required by the Board based on an independent security analysis to be completed by the Board within sixty days of issuance of the licence.
 - c. Upon notification of the amount required under Part B, Item 2 (b), the Licensee shall provide the Board with the amount within thirty (30) days.
 - d. Such further or other amounts as may be required by the Board based on annual estimates of current mine restoration liability in accordance with Part H, Item 3 and Part H, Item 4 of this Licence.
3. The security deposit may be applied to carry out work necessary to fulfil requirements of this licence where there is contravention of a condition of the licence and failure by the licensee to comply with a direction issued by the Board or by any other competent and authorized governmental body or official. This includes operational requirements as well as the provision of the Final Abandonment and Restoration Plan.

The Security Deposit shall be maintained until such time as the Board is satisfied that the Licensee has complied with all provisions of the approved Final Abandonment and Restoration Plan. This clause shall survive the expiry of this Licence or renewals thereof."

The Board considers that the issues raised by the Licensee in relation to the security deposit are complicated in nature and are likely to recur. In this particular Licence, the subject of security deposit closely involves the land owner, in this case the Kitikmeot Inuit Association. Consequently, the Board considers that **these issues should be addressed in a public hearing**. Meanwhile, the Board **maintains the requirement for a security deposit** of \$20,000. The **final amount** of the security deposit to be furnished by the Licensee and the **manner in, and reasons for**, which it may be accessed will be the object of the hearing.

III. LICENCE NWB1BOS9801

Pursuant to the Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada, the Nunavut Water Board, hereinafter referred to as the Board, hereby grants to

(Licensee) **BHP Diamonds Inc.**

of **1102 4920 - 52nd Street, Yellowknife, NT X1A 3T1**
(Mailing Address)

hereinafter called the Licensee, the right to alter, divert or otherwise use water and dispose of waste for a period subject to restrictions and conditions contained within this Licence:

Licence Number **NWB1BOS9801**

Water Management Area **NORTHWEST TERRITORIES 07**

Location **BOSTON GOLD PROJECT, NT (Latitude 67°39' N; Longitude 106°22' W)**

Purpose **WATER USE AND WASTE DISPOSAL**

PROSPECTING, CONTINUED SURFACE DRILLING, CORE-SPLITTING AND LOGGING ON SITE, UNDERGROUND DRILLING, OPERATION OF THE BULK SAMPLE PLANT, DOMESTIC USE AND ASSOCIATED ACTIVITIES, ENVIRONMENTAL BASELINE DATA COLLECTION, DEMOBILIZATION OF EQUIPMENT AND POTENTIALLY FUTURE UNDERGROUND BULK SAMPLING
Description _____

Quantity of Water Not to be Exceeded **150 CUBIC METRES PER DAY**

Date of Licence ~~**JULY 31, 1998**~~ Date of Amendment **DECEMBER 2, 1998**

Expiry Date of Licence **JULY 31, 2001**

Dated this 2nd of December 1998 at Yellowknife, NT.

Thomas Kudloo

Chairperson

PART A: SCOPE AND DEFINITIONS

1. SCOPE

- a. This Licence entitles BHP Diamonds Inc. to use water and dispose of waste for prospecting, continued surface drilling, core-splitting and logging on site, underground drilling, operation of the bulk sample plant, domestic use and associated activities, environmental baseline data collection, demobilization of equipment and potentially future underground bulk sampling. The Boston Gold Project is located in the Hope Bay Belt area of the Kitikmeot Region in the Northwest Territories, (67°39' N / 106°22' W) as shown in Figure 1, appended to this Licence.
- c. This Licence is issued subject to the conditions contained herein with respect to the taking of water and the depositing of waste of any type in any waters or in any place under any conditions where such waste or any other waste that results from the deposit of such waste may enter any waters. Whenever new Regulations are made or existing Regulations are amended by the Governor in Council under a future Nunavut Waters Act, or other statutes imposing more stringent conditions relating to the quantity or type of waste that may be so deposited or under which any such waste may be so deposited, this Licence shall be deemed, upon promulgation of such Regulations, to be subject to such requirements.
- d. Compliance with the terms and conditions of this Licence does not absolve the Licensee from responsibility for compliance with all applicable legislation.
- e. The Licensee shall have applied for and received a new Licence for mining and milling undertakings before any ore bodies in the area referred to in Part A, Item 1(a) are brought into production, other than for the mining of a bulk ore sample.

2. DEFINITIONS

In this Licence: **NWB1BOS9801**

“Average Concentration” means the concentration as determined in Part B, Item 5 of the “Surveillance Network Program” submitted to the Board in accordance with the sampling and analysis requirements specified in the “Surveillance Network Program”;

“Board” means the Nunavut Water Board established under the Nunavut Land Claims Agreement;

“Freeboard” means the vertical distance between water line and crest on a dam or dyke’s upstream slope;

“Grab Sample” means a single water or wastewater sample taken at a time and place representative of the total discharge;

“Greywater” means all liquid wastes from showers, baths, sinks, kitchens and domestic washing facilities, but does not include toilet wastes;

“Inspector” means an Inspector designated by the Department of Indian and Northern Affairs Canada in a manner consistent with the Memorandum of Understanding between the Department of Indian and Northern Affairs and the Board;

“Licensee” means the individual or organization to whom Licence NWB1BOS9801 is issued or assigned;

“Minewater” means groundwater or any other water which is pumped or flows out of any underground workings or open pits;

“Modification” means an alteration to a physical work that introduces a new structure or eliminates an existing structure and does not alter the purpose or function of the work, but does not include an expansion;

“Nunavut Land Claims Agreement” (NLCA) means the “Agreement Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in right of Canada,” including its preamble and schedules, and any amendments to that agreement made pursuant to it;

“Sewage” means all toilet wastes and greywater;

“Sewage Disposal Facilities” comprises the area and engineered structures designed to contain and treat sewage;

“Solid Waste Disposal Facilities” comprises the area and associated structures designed to contain solid wastes;

“Sump” means an excavation for the purpose of catching or storing water in an underground working or at the bottom of a shaft;

“Toilet Wastes” means all human excreta and associated products, but does not include greywater;

“Waste” means any substance that, by itself or in combination with other substances found in water, would have the effect of altering the quality of any water to which the substance is added to an extent that is detrimental to its use by people or by any animal, fish or plant, or any water that would have that effect

because of the quantity or concentration of the substance contained in it or because it has been treated or changed, by heat or other means;

“Waste Rock” means all rock materials, except ore and tailings, which are produced as a result of mining operations.

“Waste Disposal Facilities” means all facilities designated for the disposal of waste, includes the Sewage Disposal Facilities and Solid Waste Disposal Facilities; and

“Water Supply Facilities” comprises the Spyder Lake area and associated infrastructure designed to collect, treat and supply water.

PART B: GENERAL CONDITIONS

1. The water use fee shall be paid annually in advance.
2. The Licensee shall have posted and shall maintain a security deposit according to the following schedule:
 - a. within thirty (30) days of issuance of this Licence, an amount of \$20,000.00 dollars;
 - b. Such further or other amount as may be required by the Board following a public hearing;
 - c. Upon notification of the amount required under Part B, Item 2 (b), the Licensee shall provide the Board with the amount within thirty (30) days.
 - d. Such further or other amount as may be required by the Board based on annual estimates of current mine restoration liability in accordance with Part I, Item 3 and Part I, Item 4 of this Licence.
2. The security deposit may be applied to carry out work necessary to fulfil requirements of this Licence where there is contravention of a condition of the Licence and failure by the Licensee to comply with a direction issued by the Board or by any other competent and authorized governmental body or official. This includes operational requirements as well as the provision of the Final Abandonment and Restoration Plan.

The Security Deposit shall be maintained until such time as the Board is satisfied that the Licensee has complied with all provisions of the approved Final Abandonment and Restoration Plan. This clause shall survive the expiry of this Licence or renewals thereof.

3. The Licensee may submit to the Board for approval the terms of reference for the

establishment of a Reclamation Trust Fund. The Licensee shall implement the terms of the Trust Agreement only as, and when approved by the Board.

4. The Licensee shall file an Annual Report with the Board no later than March 31 of the year following the calendar year reported, which shall contain the following information:
 - a. The monthly and annual quantities (in cubic metres) of fresh water obtained from Spyder Lake at SNP station 1652-1;
 - b. The monthly and annual quantities (in cubic metres) of fresh water obtained from Spyder lake at SNP station 1652-1a;
 - c. The monthly and annual quantities (in cubic metres) of minewater pumped from underground;
 - d. A summary of any construction work, modification and major maintenance work carried out on the Water Supply and Waste Disposal Facilities, including all associated structures;
 - e. Tabular summaries for all data and information generated under the “Surveillance Network Program”;
 - f. A summary of all activities authorized under this Licence;
 - g. A summary of any abandonment and restoration work undertaken during the year and an outline of any work anticipated for the next year;
 - h. A summary of any studies requested by the Board that relate to waste disposal, water use or reclamation, and a brief description of any future studies planned;
 - i. A list of unauthorized discharges and summary of follow-up actions taken;
 - j. An outline of any spill training or communication exercises carried out;
 - k. Any revisions to the approved Contingency Plan, QA/QC Plan, Waste Rock Disposal Plan, and A&R Plan;
 - l. A brief description of follow-up action taken to address concerns detailed in inspection and compliance reports prepared by an Inspector;
 - m. A public consultation/participation report describing consultation with local organizations and the residents of the nearby communities;

- n. Any other details on water use or waste disposal requested by the Board by November 1st of the year being reported; and
 - o. An executive summary in terms understandable to the general public translated into Inuktitut of all plans, reports, or studies conducted under this Licence.
- 5. All research and studies undertaken by the Licensee shall follow the “Ethical Principles for the Conduct of Research in the North”, Association of Canadian Universities for Northern Studies (1982).
 - 6. The Licensee shall comply with the “Surveillance Network Program” annexed to this Licence, and any amendment to the said “Surveillance Network Program” as may be made from time to time, pursuant to the conditions of this Licence.
 - 7. The “Surveillance Network Program” and compliance dates specified in the Licence may be modified at the discretion of the Board.
 - 8. The Licensee shall install meters or such devices, or use such methods as approved by the Board for measuring the volumes of water used and waste discharged. The meters and measuring devices or methods shall be operated and maintained to the satisfaction of an Inspector.
 - 9. The Licensee shall post signs in the appropriate area to inform the public of Water Supply Facilities, Waste Disposal Facilities, and the necessary signs to identify the stations of the “Surveillance Network Program”. All postings shall be located and maintained to the satisfaction of an Inspector.
 - 10. The Licensee shall ensure a copy of this Licence is maintained at the site of operation at all times.

PART C: CONDITIONS APPLYING TO WATER USE

- 1. The Licensee shall obtain all freshwater for domestic purposes from Spyder Lake at SNP station 1652-1 using the Water Supply Facilities or as otherwise approved by the Board.
- 2. The Licensee shall obtain all freshwater for mine activities from Spyder Lake at SNP station 1652-1a or as otherwise approved by the Board.
- 3. The daily quantity of water used for all purposes shall not exceed 150 cubic metres.

4. The water intake hoses use on the water pumps drawing water from Spyder Lake shall be equipped with a screen with a mesh size sufficient to ensure no entrainment of fish.
5. The potable water supply shall meet the *Guidelines for Canadian Drinking Water Quality*.

PART D: CONDITIONS APPLYING TO WASTE DISPOSAL

1. The Licensee shall direct all sewage to the Sewage Disposal facilities or as otherwise approved by the Board.
2. The Licensee shall maintain the Sewage Disposal Facilities to the satisfaction of an Inspector.
3. Sludge produced by the Sewage Treatment Facilities shall be disposed of in a sump located a minimum of thirty (30) metres from the normal high water mark and such that they do not enter any water body.
4. All effluent discharged from the Sewage Treatment Facilities shall not exceed the following effluent quality standards at SNP station 1652-5:

Parameter	Maximum Average Concentration
BOD ₅	80.0 mg/L
Faecal Coliforms	10,000 CFU/100ml
Total Suspended Solids	100.0 mg/L
Oil and Grease	Visible Sheen
pH	6.0-9.5

5. The Licensee shall dispose of all solid Wastes at the Solid Waste Disposal Facilities or as otherwise approved by the Board.
6. The Licensee shall notify an Inspector should minewater be encountered and require treatment and discharge.
7. The Licensee shall provide notice to an Inspector prior to any discharge of Waste.
8. All Waste discharged except Sewage shall meet the following effluent quality requirements:

Parameter	Maximum Average Concentration	Maximum Concentration of any Grab Sample
Total Arsenic	0.50 mg/L	1.0 mg/L
Total Copper	0.30 mg/L	0.6 mg/L

Total Lead	0.20 mg/L	0.4 mg/L
Total Nickel	0.50 mg/L	1.0 mg/L
Total Zinc	0.50 mg/L	1.0 mg/L
Total Suspended Solids	25.0 mg/L	50.0 mg/L
Oil and Grease		5.0 mg/L

The waste discharged shall have a pH between 6.0 and 9.5

9. All waste discharges shall be conducted in such a manner to minimize surface erosion.
10. The Licensee shall continue to implement the “Exploration and Bulk Sampling Program - Waste Rock Disposal Plan”.

PART E: CONDITIONS APPLYING TO THE UNDERTAKING

1. The Licensee shall not deposit any waste in any body of water, or on the banks thereof, which may impair the quality, quantity, or flow of water.
11. Areas designated for waste disposal shall not be located within thirty (30) metres of the ordinary high water mark of any body of water, unless otherwise authorized.
12. All scrap metal, discarded machinery and parts, and other bulky material shall be disposed of in an approved disposal site.
13. No land-based drilling is to be done within (30) metres of the high water mark of any water body or watercourse. Drilling wastes from land-based drilling shall be disposed of in a sump at least thirty (30) metres from the high water mark of a water body, such that they do not enter any water body.
14. The Licensee shall not bury any scrap metal and other bulky wastes.

PART F: CONDITIONS APPLYING MODIFICATIONS

1. The Licensee may, without written consent from the Board, carry out modifications to the planned undertakings provided that such modifications are consistent with the terms of this Licence and the following specific requirements are met:
 - a. The Licensee has notified the Board in writing of such proposed

- modifications at least sixty (60) days prior to beginning the modifications;
- b. Such modifications do not place the Licensee in contravention of the Licence;
 - e. The Board has not, during the sixty (60) days following notification of the proposed modifications, informed the Licensee that review of the proposal will require more than sixty (60) days; and
 - f. The Board has not rejected the proposed modifications during the sixty (60) days following notification of the proposed modifications.
- 2. Modifications for which all of the conditions referred to in Part F, Item 1 have not been met can be carried out only with written consent from the Board.
 - 3. The Licensee shall provide as-built plans and drawings of the modifications referred to in this Licence within ninety (90) days of completion of the modification. These plans and drawings shall be submitted to the Board on material that will reproduce with a standard copier.

PART G: CONDITIONS APPLYING TO STUDIES

- 1. The Licensee shall submit to the Board, within sixty (60) days of issuance of the Licence, a proposal for monitoring the effectiveness of using sewage effluent for the remediation for hydrocarbon contaminated areas.
- 2. The Licensee shall implement the plan in Part G, Item 1 as and when approved by the Board.

PART H: CONDITIONS APPLYING TO SPILL PREVENTION AND CONTINGENCY PLANNING

- 1. The Licensee shall ensure that any fuels, chemicals, or wastes associated with this undertaking do not enter any waters. All fuel is to be stored at a location that is a minimum of thirty (30) metres from the ordinary high water mark of any water source.
- 2. The Licensee shall submit to the Board for approval by September 1, 1998, a revised Spill Contingency Plan in accordance with the Northwest Territories Water Board's "Guidelines for Contingency Planning, January 1987".
- 3. The Licensee shall revise the Spill Contingency Plan referred to in Part H, Item 2,

if not acceptable to the Board. The revised Plan shall be submitted to the Board for approval within thirty (30) days after notification.

4. The Licensee shall annually review the Spill Contingency Plan and modify the Plan to reflect changes in operation, technology and personnel. Any proposed modification shall be re-submitted to the Board for approval.
5. If, during the period of this Licence, an unauthorized discharge of waste occurs, or if such a discharge is foreseeable, the Licensee shall:
 - a. Employ the Contingency Plan;
 - b. Report the incident immediately via the 24-Hour NWT Spill Reporting Line (867) 920-8130; and
 - c. Submit to an Inspector a detailed report on each occurrence no later than thirty (30) days after initially reporting the event.

PART I: CONDITIONS APPLYING TO ABANDONMENT AND RESTORATION

1. The Licensee shall submit to the Board for approval a revised Abandonment and Restoration Plan within sixty (60) days of issuance of this Licence.
2. The Licensee shall revise the Abandonment and Restoration Plan referred to in Part I, Item 1, if not acceptable by the Board. The revised Plan shall be submitted to the Board for approval within sixty (60) days after notification.
3. The Licensee shall implement the plan referred to in Part I, Item 1 or Part I, Item 2 as and when approved by the Board.
6. The Licensee shall complete all reclamation work within the time schedule specified in the approved Abandonment and Restoration Plan.
7. Notwithstanding the time schedule referred to in Part I, Item 3 the Licensee shall endeavour to carry out progressive restoration of areas which are abandoned prior to closure of operations.
8. The Licensee shall annually review the Abandonment and Restoration Plan and shall modify the Plan to reflect changing operations, technology and the results of reclamation and other studies. The proposed modifications shall be submitted to the Board for approval.

SCHEDULE I

SURVEILLANCE NETWORK PROGRAM

Licence Number:	NWB1BOS9801
Effective Date of Licence:	July 31, 1998
Date of Amendment:	December 2, 1998

SNP SAMPLING LOCATIONS, SAMPLING REQUIREMENTS, AND ANALYSIS REQUIREMENT.

Station Numbers	Description	Sampling Requirements	Analysis Requirements
1652 - 1	Raw water intake at Spyder Lake for camp	Not required	Not required
1652 - 1a	Raw water intake at Spyder Lake for mine	Not required	Not required
1652 - 2	Minewater discharge (if encountered)	Once During the first week and monthly thereafter	Total Suspended Solids Total Arsenic ICP metal scan (monthly only) Total Ammonia pH
1652 - 3	Sewage effluent discharge point	Once monthly	Faecal Coliform Total Suspended Solids Oil and Grease BOD ₅ pH
1652 - 4	Abandoned Sewage effluent point discharge into Spyder (Aimaogaktag) Lake.	Not required	Not required
1652 - 5	Sewage effluent point discharge into Spyder (Aimaogaktag) Lake	Once monthly	Faecal Coliform Total Suspended Solids Oil and Grease BOD ₅ pH

*The pH, temperature and specific conductivity of the sample shall be recorded at the time of sampling.

B. SNP GENERAL REQUIREMENTS

1. The Licensee shall, within sixty (60) days of issuance of this Licence submit to the Board for approval a revised Quality Assurance/Quality Control plan which addresses analysis of field blanks and certified reference material, and replicate sampling in order to assess accuracy, precision and field contamination.
1. The plan referred to in Part B, Item 1 of the SNP, shall be implemented as approved by the Board.
2. All analyses shall be conducted in accordance with methods prescribed in the current edition of "Standard Methods for the Examination of Water and Wastewater", or by such other methods as approved by the Board.
3. All analyses shall be performed in a laboratory approved by the Board.
4. The following example is provided to illustrate the procedures for calculating the average concentration. If the effluent stream is sampled weekly for each substance, the following lead values may be obtained:

Week 1	Sample #1	.15
Week 2	Sample #2	.12
Week 3	Sample #3	.10
Week 4	Sample #4	.18
<i>Running Average = (.15+.12+.10+.18)/4=.137</i>		
Week 5	Sample #5	.20
<i>Running Average = (.12+.10+.18+.20)/4=.150</i>		
Week 6	Sample #6	.16
<i>Running Average = (.10+.18+.20+.16)/4=.160</i>		

C. FLOW MEASUREMENT REQUIREMENTS

1. The monthly quantities of water pumped from SNP Station Number 1652 - 1 shall be measured and recorded in cubic metres.
2. The monthly quantities of water pumped from SNP Station Number 1652 - 1a shall be measured and recorded in cubic metres.
3. The monthly quantities of minewater pumped from SNP Station Number 1652 - 2 shall be measured and recorded in cubic metres.

D. REPORTS

1. The Licensee shall submit to the Board within thirty (30) days following the month being reported, all data and information required by the “Surveillance Network Program”, including the results of the approved quality assurance plan.

E. MODIFICATIONS TO THE SNP

1. Modifications to the Surveillance Network Program may be made only upon written approval of the Board.

SCHEDULE II - LICENSING CONSIDERATIONS

I. APPLICATIONS FOR LICENCE AMENDMENT, RENEWAL, ASSIGNMENT OR CANCELLATION.

1. An Application for an amendment or renewal shall be in the form set out by the Board and shall contain the information identified therein and be accompanied by a deposit equal to any water use fee that would be payable under subsection II (1) in respect of the first year of the Licence that is being applied for.
5. The fee payable on the submission of an application for the amendment, renewal, cancellation or assignment of this Licence is thirty (30) dollars. (Cheque c/o Receiver General for Canada)
6. An application for authorization for the assignment of the Licence shall be submitted to the Board, accompanied by the fee set out in (2), no less than 45 days before the date on which the applicant proposes to assign the Licence, and shall:
 - a. Be signed by the assignor and the assignee; and
 - d. Include the name and address of the assignee.
7. An application for cancellation of a Licence shall be in writing and shall set out the reason for the requested cancellation and a description of the measures taken or proposed to be taken, prior to cancellation, for abandonment of the appurtenant undertaking.

II. WATER USE FEES

1. The fee payable by the Licensee for the right to the use of water, calculated on an annual basis, in respect of an industrial, mining and milling undertaking, is the greater of thirty (30) dollars or the aggregate of:
 - a. For the first 2,000 m³ per day that is authorized by the Licence, \$1 for each 100 m³ per day,
 - b. For any quantity greater than 2,000 m³ per day but less than or equal to 4,000 m³ per day that is authorized by the Licence, \$1.50 for each 100 m³ per day, and
 - c. For any quantity greater than 4,000 m³ per day that is authorized by the Licence, \$2 for each 100 m³ per day.
2. For the purposes of paragraph (1), where a licence authorizes the use of water on a basis other than a daily basis, the water use fees payable shall be calculated by converting the rate of authorized use to an equivalent daily rate.
3. Where the volume of water is specified in a licence to be total watercourse flow, the

water use fees will be calculated using the mean daily flow of the watercourse, calculated on an annual basis.

4. Water use fees are payable only for the portion of the year during which the Licence is in effect.
5. The water use fees shall be paid:
 - a. In respect of a licence for a term of one year or less, at the time the licence is issued; and
 - b. In respect of a licence for a term of more than one year:
 - i. For the first year of the licence, at the time the licence is issued, and
 - ii. For each subsequent year of the licence, or for any portion of the final year of the licence, in advance, on the anniversary of the date of issuance of the licence.

III. SECURITY DEPOSITS

1. Security deposits shall be in the form of:
 - a. A promissory note guaranteed by a bank in Canada and payable to the Receiver General;
 - b. A certified cheque drawn on a bank in Canada and payable to the Receiver General;
 - c. A performance bond approved by the Treasury Board for the purposes of paragraph (c) of the definition “security deposit” in section 2 of the *Government Contract Regulations*;
 - d. An irrevocable letter of credit from a bank in Canada; or
 - e. Cash
2. Security deposits shall be furnished by the Licensee:
 - a. In respect of a licence for a term of one year or less, no later than 30 days after the licence is issued; and
 - b. In respect of a licence for a term of more than one year:
 - i. For the first year of the licence, no later than 30 days after the licence is issued, and
 - ii. For each subsequent year of the licence, or for any portion of the final year of the licence, in advance, on the anniversary of the date of issuance of the licence.

**SCHEDULE III - GENERAL CONDITIONS FOR THE ADMINISTRATION OF LICENCES
ISSUED BY THE NUNAVUT WATER BOARD (NWB)**

1. At the time of issuance, a copy of the Licence is placed on the Water Register in the NWB Head Office in Gjoa Haven, and is available to the public.
2. To enforce the terms and conditions of the Licence, the Department of Indian Affairs and Northern Development designates Inspectors in a manner consistent with the Memorandum of Understanding between the Department of Indian and Northern Affairs and the NWB. The Inspectors coordinate their activities with the NWB staff and officials of the Water Resources Division of DIAND. The Inspector responsible for Licence No. NWB1BOS9801 is located in the Nunavut District office.
3. To keep the NWB and members of the public informed of the Licensee's conformity to Licence conditions, the Inspectors prepare inspection and compliance reports which detail observations on how the Licensee has met each condition in the Licence. These reports are forwarded to the Licensee with a covering letter requesting what action, if any, should be taken. The inspection reports and covering letters are placed on the public Water Register, as are any responses received from the Licensee pertaining to the inspection reports. It is therefore of importance that the Licensee react in all areas of concern regarding inspection reports so that these concerns may be clarified.
4. If the Licensee contemplates the renewal of Licence No. NWB1BOS9801, it is the responsibility of the Licensee to apply to the NWB for renewal of the Licence. The past performance of the Licensee, new documentation and information, and issues raised during a public hearing, if the NWB is required to hold one, will be used to determine the terms and conditions of the Licence renewal. If the Licence expires before the NWB issues a new one, then water use and waste disposal must cease, or the Licensee will be in contravention of the Nunavut Land Claims Agreement. The NWB recommends that an application for the renewal of Licence No. NWB1BOS9801 be filed at least six months before the Licence's expiry date.
5. If Licence No. NWB1BOS9801 requires amendment, then a public hearing may be required. The Licensee should submit applications for amendment as soon as possible to give the NWB sufficient time to go through the amendment process. The duration of the process may vary depending on the scope of the amendment requested.
6. The NWB can modify the Surveillance Network Program annexed to the Licence without a public hearing. Requests for changes to the Surveillance Network Program should be forwarded to the NWB in writing, and should include the justification for the change.
7. Any communication with respect to this Licence shall be made in writing to the attention of:
Philippe di Pizzo
Executive Director
Nunavut Water Board
P. O. Box 119
Gjoa Haven, NT. X0E 1J0

Telephone No:(867) 360-6338

Fax No: (867) 360-6369

8. Inspection and enforcement of the terms and conditions of this Licence are performed by:

Nunavut District Office

Northern Affairs Program

Department of Indian Affairs
and Northern Development

P. O. Box 100

Iqaluit, NT. X0A 0H0

Telephone No:(867) 979-4405

Fax No: (867) 979-6445

9. The Licensee shall submit all reports, plans and studies to the Board in **triplicate**.

FIGURE 1 SITE MAP - PROJECT ENVIRONMENTAL IMPACT AREA WITH SNP STATIONS *(from Water Licence Application package)*