



HOPE BAY JOINT VENTURE

Miramar Hope Bay Ltd. – Hope Bay Gold Corporation Inc.

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July 30, 2001

Mr. Philippe di Pizzo
Executive Director
Nunavut Water Board
P.O. Box 119
Gjoa Haven, NU, X0E 1J0

Dear Mr. di Pizzo,

Re: Application for Renewal of Water Licence No: NWB1BOS9801
Advanced Exploration - Hope Bay Joint Venture (HB JV) – Final Submission

This will acknowledge receipt of your letter dated June 25, 2001, which outlined the scope of the hearing. Subsequently, we also acknowledge receipt of various interventions from interested parties on July 18, 2001. Following our review of the received interventions, this submission should be considered the HBJV's final position for the Board's consideration in setting the terms and conditions and issuing our renewed water license.

To be consistent with the requested scope and topics to be addressed, we have provided our final position based on the following:

- (a) All matters currently regulated under Licence NWB1BOS9801;
- (b) Potential acid rock drainage and metal leachate from ore and waste rock piles;
- (c) Abandonment and restoration of the undertaking;
- (d) Assessment of the cost to carry out the abandonment and restoration of the undertaking;
- (e) Terms and conditions for the financial assurance;
and
- (f) Final comments by proponent

a) All matters currently regulated under Licence NWB1BOS9801

As mentioned in our initial application and cover letter dated 30 January, 2001, we provided an overview of the current terms and conditions of the water licence including suggested changes where the HBJV deemed appropriate. As such, we reiterate our comments from January 30 and provide additional comments (*in italics*) including those based on our review of the various interventions.

Part A: Scope and Definitions:

1. Scope:

The correct licensee names are "Miramar Hope Bay Ltd. and Hope Bay Gold Corporation Inc.

2. Definitions:

No Comment – existing definitions in general are fine. One comment on the definition for "Modification" would be to clarify that the elimination of an existing structure would not require the submission of "as built" drawings as stated in Part F Item 3. The Board's amendment # 3 for the current licence approved the use of only one intake for all water use, as such there was really no modification. In this case, we do not feel "as built" drawings are required. *With respect to the newly constructed Fuel tank farm, we will be providing "as built" drawings once finalized by our consultants.*

Part B: General Conditions:

1. No comment, water use fee will be paid with annual report due 31 March each year.

2. Both Miramar Hope Bay Ltd. and Hope Bay Gold Corporation Inc. have complied with this clause and the total security provided now stands at \$1,700,000.00. The new licence should reflect this. *Following our submission of the revised A&R Plan as requested by the Board in their letter dated March 26, 2001, we feel there is substantial evidence to have a reduction in bonding levels and additional comments are provided under scope sections (c) "Abandonment and restoration of the undertaking" and (d) "Assessment of the cost to carry out the abandonment and restoration of the undertaking".*

3. No comment. Should remain in licence renewal.

4. Item 1 and 2 should be revised as all fresh water is taken from SNP station 1652-1(a) as per the amendment # 3, dated August 2, 2000.

5. No Comment. Should remain in licence renewal.

6. No comment, this infers the conditions of the effective SNP and we have made comments on the SNP later in this submission.

7. No comment, this should remain in the licence renewal.

8. No comment, this should remain in the licence renewal.

9. No comment, this should remain in the licence renewal.
10. No comment, this should remain in the licence renewal.

Part C: Conditions Applying to Water Use

1.) &

2.) All freshwater obtained for the operation including domestic and for mine activities is obtained from SNP Station 1652-1(a). Please refer to the Water Board amendment #3 dated August 2, 2000. These two clauses should be re-written to reflect this change in the licence renewal.

3. As per the attached application form, we are requesting the daily quantity of water used for all purposes remain at **150 cubic meters per day**.

4. No comment, this should remain in the licence renewal.

Part D: Conditions Applying to Waste Disposal

1.) &

2.) No comment, these should remain in the licence renewal.

3. We suggest this clause be re-written to allow the licence to utilize the sewage sludge as a possible additive to impacted areas as a growth medium. This also fits in with the Water Board's wastewater discharge guidelines. If we were given the option to place the sludges on impacted areas as "test plots" this may prove to be a viable treatment option for not only the Hope bay Joint Venture, but other operations as well. We suggest new wording provide some flexibility to allow these test sites to be utilized. *In the intervention from DIAND, they also suggest that this clause be re-worded to allow some flexibility for using sewage sludges as a potential remediation medium. We solicit the Board's favorable approval of this request.*

4. No comment, suggest this clause remain the same including *the parameters and stated* effluent quality requirements in the licence renewal.

5. No comment, suggest this clause remain the same in the licence renewal. This clause gives the Board the flexibility to approve a solid waste disposal area, however, *it is imperative that the HBJV receive appropriate approvals from either the Board or KIA as soon as possible. Please see Part E, Item 12.*

6. No comment, suggest this clause remain the same in the licence renewal.

7. No comment, suggest this clause remain the same including the *current parameters* and effluent quality requirements in the licence renewal.

8. No comment, suggest this clause remain the same in the licence renewal.

9. No comment, suggest this clause remain the same in the licence renewal.

Part E: Conditions Applying to the Undertaking:

The existing licence has clauses that are not in sequence by number. The licence renewal should have numbers in sequence. Based on the existing terms in Part E, comments are as follows:

1. No comment, suggest this clause remain the same in the licence renewal.
10. No comment, suggest this clause remain the same in the licence renewal.
11. This clause contradicts our land use permit conditions which allows drilling from ice and in some cases close to shore and within the 30 meter restriction. When drilling is carried out from the ice, the poly-drill solids retention method is employed and the residue is disposed of in an area approved by KIA Lands. Should this clause remain in the licence renewal, re-wording should be given consideration *that allows the licensee some flexibility in completing its exploration programs.*
12. The clause as written gives the licensee some flexibility in disposing of solid waste and as such we would consult with the Board as required. As stated in our submission dated January 30,2001 and as we understand it, the current Land Use Permit allows for the construction of a solid waste disposal site. *Since that date, the KIA have provided documentation that approval of a "Solid Waste Disposal Site" at Boston will be forthcoming subject to comment from NWB and NIRB. We expect to receive KIA approval in due course and we would keep the Board apprised of any undertaking. Conversely, we believe the NWB could place clauses in the renewed licence related to a solid waste disposal site, however; intervention comments from KIA should be considered. It is imperative that the HBJV receive appropriate approvals for a "Solid Waste Disposal Area" at the Boston site so we can proceed with proper solid waste management programs. We solicit the Board's approval of this request or provide the support to KIA to give the HBJV appropriate approval to proceed as soon as possible.*

Part F: Conditions Applying To Modifications

- 1.)
- 2.)
- 3.) No comments on these clauses. It is suggested that they remain the same in the licence renewal. Please note our comments regarding the definition of modification in Part A.

Part G: Conditions Applying to Studies

- 1.)
- 2.) *Our position remains as originally submitted on January 30, 2001, that these clauses are not applicable for the licence renewal as it refers to a document that we understand had been provided by BHP – the previous owner. It is suggested that they should be removed or changed to reflect the Hope Bay Joint Venture's (current owners) plans. It is our intention to continue investigating the application of sewage effluent as a medium to remediate hydrocarbon contaminated areas, however; these investigations would be carried out over a period of years. The DIAND submission contains a wish list of studies, most of which deal with waste characterization work. The HBJV acknowledges that additional waste characterization work will*

be required as exploration and development proceeds. The HBJV has previously committed to conducting such work as part of its future exploration activity associated with this project. The multi-party review, conducted as part of this licence renewal process, has been positive as it helps the HBJV team identify the issues that need to be addressed in future work. Additional waste characterization work will be a key requirement of the terms of reference for future environmental assessment of this project if the project proceeds to the development phase, however; in our opinion it is not necessary to entrench waste characterization studies as a licence condition at this stage.

Part H: Conditions Applying To Spill Prevention and Contingency Planning

1. We agree in principle with this clause, the only comment would be that, if properly constructed, fuel could be stored in an area that may encroach on the 30 metre limit. Some consideration should be given to this potential scenario and the clause written as such.
2. This clause should be removed or re-written to reflect the current ownership. We believe the Spill Contingency Plan was submitted as required by the previous owner and was revised and resubmitted by the Hope Bay Joint Venture in early 2000. It is our opinion that our submission complies with this condition. *We suggest that the Board could request that a new plan be submitted by the HBJV 90 - 120 days after receipt of the renewed licence or alternatively within the annual report requirements.*
3. We agree that the Spill Contingency Plan should be revised if not acceptable to the Board. This should be incorporated into the new clauses in the renewed licence.
4. We agree the Spill Contingency Plan should be reviewed annually and as mentioned above, the renewed licence terms and conditions should reflect this, keeping in mind the new ownership of the project.
5. We agree in principle with this clause, the only comment would be; there needs to be a better understanding of what constitutes a spill and at what quantity. The practice followed during the 2000 program was to report all spills regardless of size. This we feel somewhat overloads the spill report line and from experience it is difficult to get the spill report files closed by the inspector. *Subsequent to the original application submission dated January 30,2001, the KIA have placed in their "Commercial Exploration Lease" that reporting to the spill line would be required for spills over 20 litres; for spills less than this amount, a record be kept and made available upon request by the inspector. We solicit the Board's approval for this and suggest the clause be re-written as such.*

Part I: Conditions Applying To Abandonment and Restoration

This section should be re-written to reflect the current ownership, it is also noted that the clause numbers are out of sequence and this should be corrected in the renewed licence. Comments are:

1.)

2.) &

3.) *Subsequent to our original submission dated January 30, 2001 which stated "We believe the previous owner submitted the required plan which has been accepted by the Board. The Hope Bay Joint Venture accepted this plan as part of the purchase agreement until such time as we could review the plan, assess the commitments made in the existing plan, and develop our own strategy to address Abandonment and Restoration issues. It should be noted that the Hope Bay Joint Venture carried out a significant clean-up effort in the belt during the 2000 program and we feel this activity has greatly reduced the clean-up liability on the project.", we have, as requested, provided the Board with a revised A&R Plan dated May 23, 2001 which outlines current estimated costs for cleaning up the project area including the Boston site. These clauses should be re-written to reflect this submission, including the Board's approval of the revised plan.*

6.) &

7.) Again, we suggest that these clauses be re-written to reflect the current ownership. The Board should establish (if appropriate) new terms and conditions in Part I after giving full consideration to the significant clean-up effort demonstrated by the Hope Bay Joint Venture in 2000 and 2001 including the review of the revised A&R Plan submitted on May 23, 2001.

SURVEILLANCE NETWORK PROGRAM

A. Sampling Locations, Sampling Requirements, and Analysis Requirements:

This table should be revised to reflect the amendments approved in 2000. *The addition of an SNP station below the waste/ore storage pad should be added to Schedule 1.*

B. SNP General Requirements

There appears to be a numbering sequence error, this should be rectified in the renewed licence.

1.)

1.) The Hope Bay Joint Venture adopted the Quality Assurance/ Quality Control plan submitted by BHP and approved by the Board. We feel the plan approved by the Board is still valid but suggest that the clause, if deemed necessary in the renewed licence, be written to reflect the current ownership. Further, the Hope Bay Joint Venture is reviewing this plan and will revise and update if deemed necessary *or if the Board requests a revised plan be submitted within a reasonable period of time (say 90 - 120 days) from issuance of the renewed licence.*

2.) &

3.) No comments, it is expected these clauses would be included in the renewed licence

4. This clause should remain in the renewed licence.

C. Flow Measurement Requirements

No comments other than to suggest the renewed licence reflect the amendments approved in 2000 and item 1 would no longer be required.

D. Reports

No comments, suggest this clause remain as is in the renewed licence.

5. Modifications to the SNP.

This should possibly be section **E and not 5**. This clause should remain as is in the renewed licence.

Schedule II –Licensing Considerations

Schedule III- General Conditions for the Administration of Licences Issued by the Nunavut Water Board (NWB)

These two schedules appear to be standard to all licences, and suggest that they be incorporated into the renewed licence. The only comment at this time is related to Schedule III item 4, where discussion on a public hearing is mentioned and that a public hearing may or may not be required. It is the Hope Bay Joint Venture's position that, because this is a renewal application, there has been no major changes to the operation and the Board has approved the requested amendments in 2000, we see there being no need to hold a public hearing for our renewal application. We will reserve further comments on Schedule II and III once the renewed licence is provided for comment.

b) Potential acid rock drainage and metal leachate from ore and waste rock piles

There has been considerable documentation from various interveners on the "potential acid rock drainage and metal leachate from ore and waste rock piles", and as stated earlier, we agree with the concept of modifying the SNP program to monitor the potential leachates from the area. As a point of clarity, "ore and waste rock piles" is better defined as "ore stockpiles, which are placed on a waste rock pad". The following addresses the interventions from DIAND and KIA and clarifies our position related to this subject and solicit the Board's favorable consideration.

The HBJV believes that the DIAND submission overstates the potential for acid generation associated with the ore stockpiles that have been placed on the waste rock pad at the site. The database of waste characterization work carried out on these materials is comprehensive and confirms that there is a low probability of acid generation associated with the majority of the rock types found at the Boston site. The work commissioned by KIA supports this observation.

The HBJV acknowledges that additional waste characterization work will be required as exploration and development proceeds. The HBJV has previously committed to conducting such work as part of its future exploration activity associated with this project. The multi-party review, conducted as part of this licence renewal process, has been positive as it helps the HBJV team identify the issues that need to be addressed in future work. The HBJV recognizes that additional waste characterization work will be a key requirement of the terms of reference for future environmental assessment of this project if the project proceeds to the development phase, however; in our opinion, it is not necessary to entrench waste characterization studies as a licence condition at this stage.

It is acknowledged by the HBJV, and as identified by the various interventions that there is evidence of neutral metal leaching from some of the ore/waste rock piles currently stored at the project site. Due in part to good management practices, the potential for this contamination to enter adjoining water bodies is restricted by local conditions such as topography, climate and minimal runoff from the stockpile area. Nevertheless, the HBJV recognizes that additional monitoring is justified to quantify the extent of metal leaching and to ensure that these runoff waters are not impacting the adjacent water bodies. To respond to this concern, the HBJV is willing to modify the Surveillance Network Program (SNP) to incorporate these objectives. The HBJV asks the Board to give us the time necessary to review site topography and hydrologic conditions to propose an appropriate SNP modification to achieve this objective. Conversely, if the Board undertakes to adjust the current SNP program, the HBJV respectfully requests that it have the opportunity to provide comments prior to finalizing the requirements in the renewed licence. As mentioned earlier, any revised SNP program should state that sampling at the new station be “carried out during periods of flow and when the camp is operational”.

With respect to the Kitikmeot Inuit Association submission, the HBJV appreciates the actions taken by the KIA to investigate the acid rock drainage and neutral metal leaching potential associated with the ore/waste material stored at the project site to improve the database of information available for review by all parties. This was a very progressive step.

The HBJV agrees in principal with the recommendations put forward by the KIA in relation to “Waste characterization” and “Modification of the SNP” and we refer the reader to the previous comments on these issues.

The HBJV, after reviewing the ARD reports prepared for the KIA by Ferguson, Simek Clark and Lorax Environmental Services, would like to provide the following comments for the Board’s consideration. Although we appreciate the work done by the KIA’s consultants and as mentioned earlier, the information assists in developing a long term strategy to address potential ARD and neutral metal leaching issues at the Boston site, there are some points of clarity required. These are:

- The noted variation in sulphur content and neutralization potential between the three samples tested by FSC and the average of the samples tested by Rescan is likely due to the fact that the material sampled by FSC represents only a small portion of the samples tested by Rescan. Waste material from the development decline that was identified as being non-acid generating was reportedly used to construct the base of the laydown pad and other site roads. Material that was identified as being potentially acid generating or of uncertain acid generation potential was placed on the laydown area. Consequently the material sampled by FSC represents only that material that was not used in construction and is likely to be higher in sulphide mineral content and lower in neutralizing potential.
- Some of the soil samples collected by FSC were taken some distance from the ore stockpile/waste rock pad and as such these sample areas may have been previously impacted by diamond drilling activity. The HBJV would advise the Board to use caution when evaluating the FSC and Lorax soil sampling information due to the fact that the potential impacts measured may be related to previous management practices at the site and are unrelated to the waste rock stockpiles.
- Similarly, most of the FSC water samples were taken from ponded water adjacent to the stockpiles, which is a logical approach because in most cases there is no evident surface flow. Although these samples clearly indicate elevated concentrations of arsenic and nickel, it is speculative at best, to conclude that there is a significant problem. Are these elevated levels to accumulation over several years within these ponds or are they elevated due to ongoing leaching. It is recognized that this is the best FSC could be expected to achieve with a single site visit, however additional sampling is required to address whether this is truly an indication of ongoing leaching or whether the results represent an initial flush of metals from these stockpiles. Again, the HBJV would advise the Board to use caution when evaluating the FSC and Lorax information on this issue.

c) Abandonment and restoration of the undertaking

As requested by the Board, the HBJV submitted a revised Abandonment and Restoration dated May 23, 2001. This revised plan reviewed all associated activities and included the substantial cleanup activity carried out by the HBJV during the 2000 advanced exploration program and included the activities in 2001, which further demonstrated the considerable efforts by the HBJV in cleaning up the belt. The revised plan included activities necessary to finalize cleanup within the whole Hope Bay project area, which includes the Boston area, Windy Lake camp, Wolverine camp and remaining work required at other advanced exploration target areas such as Doris Lake. Our submission covered all these areas as it was our intent to provide the Board with an accurate perspective of the work completed to date, work that would be competed should the project be abandoned and the resultant costs associated with these activities. The revised plan clearly separates activities related to "Boston" and "off Boston" and as such the Board could interpret the costs associated directly to Boston. It would be the HBJV's suggestion however that the revised A&R Plan as submitted, be accepted as it does, in our opinion, provide the Board with the cost of reclamation in constant 2001 dollars for the whole project area.

d) Assessment of the cost to carry out the abandonment and restoration of the undertaking.

The HBJV stands by the cost estimate included in the revised A&R Plan and submitted on May 23, 2001. The revised plan identifies the components of abandonment and restoration activities

at the Hope Bay project area that will be carried out, should the project be abandoned. As stated in the closing comments of the A&R Plan submission "This revised Abandonment and Restoration Plan demonstrates the significant effort undertaken by the HBJV to address concurrent reclamation activities. This has resulted in a considerable reduction to the costs remaining to complete reclamation as confirmed by the current estimate. The HBJV believes that our demonstrated commitment to environmental management and our cleanup effort in the Hope Bay project area justifies a reduction in current bonding levels". To address comments from KIA regarding costs of placing the stockpiled ore underground the cost estimate includes the options of placing the material either underground or re-contouring the material on surface.

e) Terms and conditions for the financial assurance

The current levels of financial assurance are provided by letters of credit (LOC's) and are deemed satisfactory to the proponent. Issues related to "payee" and whether the bond covers land and water, water only or land only are issues that cannot be addressed by the proponent as they are seen to be issues of a political nature that require resolution between the KIA/NTI and DIAND. The HBJV accepts the principle of appropriate bonding levels, however we do not want to be in a position where the security is placed at a level above and beyond that required to satisfactorily abandon the project area. As stated earlier, the revised A&R Plan provides the background and basis for a reduction in overall bonding levels and although there is some discussion from KIA's intervention that the bonding levels held by them for their land use permits do not apply to this water licence is, in our opinion, wrong. The revised cost estimate covers cleanup of the whole belt and as such, we respectfully solicit the Board's serious consideration in reducing the current bonding requirements. As stated in our revised A&R plan submission "Water Licence NWB1BOS9801 requires a bond in the amount of **\$1,700,000.00**. This bond amount is covered by appropriate Letters of Credit (LOC's) and was provided in full effective January 1, 2001. Furthermore, the HBJV has provided a Letter of Credit to the Kitikmeot Inuit Association and in the amount of **\$750,000.00** for activities associated with land use permit number KTL399C028.

Based on the current total bonding level provided by the HBJV of **\$2,450,000.00**, and the revised cost estimate provided by Nuna Logistics to complete all restoration activities at **\$1,578,000.00**, a reduction of the total bonding requirement in the order of **\$872,000.00** is warranted." Again, we solicit the Board's favorable consideration in this matter.

f) Final comments by the proponent

The HBJV appreciates the opportunity to provide our final position for the Board's consideration in preparing our renewed licence terms and conditions. To summarize the forgoing:

- We are seeking a five (5) year licence term with an expiry date of August __, 2006.
- We agree with the addition of an SNP station below the waste and ore stockpile to increase the database on potential metal leaching from this area. The sampling frequency should be monthly during periods of flow and when the Boston camp is in operation. The parameters for analysis should be the same as those stated for SNP station 1652-2. If metal leaching is in fact occurring, the HBJV is prepared to develop appropriate management plans to ensure minimal impacts to adjacent water bodies.
- We do not see the validity of increasing the parameters for analysis at any SNP station and suggest these requirements remain as currently specified in the current licence.
- The request for additional studies be seriously scrutinized by the Board and we suggest reference to our comments above.
- DIAND has suggested that the Rescan report recommendations should be implemented to address the issues of potential ARD, however the HBJV disagrees with this suggestion. It should be noted that Rescan did not investigate the practicality or viability of their recommendations before putting out their report (i.e. no work was done to identify how the piles were to be covered or where drainage ditches could be placed), therefore, until such time as more definitive information is available, perceived issues can be addressed in a revised SNP program.
- The body of waste characterization work conducted on this property to date has been quite extensive. The results suggest that acid generation is not likely to be a problem for the bulk of the waste materials, however; select rock types may warrant special management. There are indications that neutral metal leaching of arsenic, nickel and copper may be associated with some rock types. The HBJV acknowledges that additional waste characterization work will be required as part of ongoing exploration activity to address these issues as the project moves forward.
- The reports prepared by FSC and Lorax for the KIA, although valuable information, should be considered as another set of data, which compliments the already existing large information base and that conclusions and further requirements be scrutinized prior to the Board suggesting new or expanded ARD/metal leaching programs. The HBJV feels that the initial step is to increase the SNP by one sampling station initially to increase our knowledge in this matter. Please refer to comments in the main text.
- A on-site Solid Waste Disposal Area be approved either by the Board in the renewed licence or the Board provides positive and supportive comments to KIA enabling them to approve the site.
- The requirements for a revised QA/QC plan and Spill Contingency Plan be incorporated into the renewed licence with submission in acceptable timelines (90-120 days).
- The revised A&R Plan be approved by the Board with a reduced bonding requirement which more accurately reflects the current costs for reclamation.

The HBJV thanks the Board for the opportunity to comment and we look forward to reviewing the "draft" renewed licence in due course.

Should you require clarification on anything related to this, our final submission of our application, please do not hesitate to contact the undersigned at the numbers above, on cell # 780-975-2550 or by e-mail to:

hwilson@miramarmining.com;
hugh_r_wilson@hotmail.com
terrbear@powersurfr.com.

Yours truly,

Hugh R. Wilson
Manager, Environmental Affairs

Cc: HBJV Management Committee
A. Fleming, Exploration Manager.