

Gideon Qitsualik stated he appreciated the information being presented. He asked how kimberlite was going to be produced and marketed. He also asked what the diamonds would be used for.⁸²

3. **Analysis**

3.1 Issues to be Decided

The Nunavut Impact Review Board must decide whether the Jericho Diamond Project is in the best interests of those in Nunavut, and generally, elsewhere in Canada. To decide this, the Board will balance public concern, potentially adverse environmental effects, project technology, and other matters⁸³, and then conclude that the project should proceed or not. The reporting parameters for the Board's decision are found in section 12.5.6 of the NLCA. That provision states:

“After reviewing the project proposal, NIRB shall issue a report to the Minister and the proponent containing:

- (a) its assessment of the project and its impacts;
- (b) its determination as to whether or not the project should proceed based on its assessment under (a); and
- (c) in the event the project were to proceed, terms and conditions reflecting the primary objectives set out in Section 12.2.5.”⁸⁴

3.2 Burden and Standard of Proof

The Board believes the *Burden* of persuading its Members, rests upon Tahera, the Project Proponent. We do not believe the Inuit, or any other party, have the primary obligation to persuade NIRB that Tahera's statements are true or false; it is the other way around because the Application is filed by the Proponent, who if successful will profit by the extraction of diamonds from Nunavut. NIRB also believes it is the Proponent that must prove to Inuit that the ecosystem will not be significantly affected by this Project to the detriment of the Inuit.

We believe the *Standard* of proof in this Hearing requires a delicate balancing of the

⁸² Gideon Qitsualik, Elder. Oral comment at Gjoa Haven Hearings, January 9, 2004.

⁸³ See, for example, Section 12.4.2 of the NLCA.

⁸⁴ Section 12.5.6 of the NCLA.

evidence, in other words, after all the submissions are read and heard by the Board, this project will be forwarded to the Minister for approval if the Proponent convinces the Board more than anyone else challenging the proposal, that it should be approved.

3.3 Reporting Obligations

The Board will be sending its report to the responsible Ministers, i.e., those who have decision-making responsibilities for the proposal. Pursuant to Section 12.1.1 of the NLCA, this can include several ministers, for example, INAC, DFO, NRCan and so on. At the Final Hearings, the Proponent filed a list of authorizations⁸⁵ that will eventually be required of different decision-makers. This list includes, as it should, Territorial Governments, Federal Governments, and Inuit decision-makers such as the Kitikmeot Inuit Association who are the landowners. That said, during the Hearings the Board asked the GN representative whether or not the Territorial Government had decision-making responsibilities for Tahera's application. This is the transcript interchange:

"NIRB Staff: "... does NIRB have to report to any GN Minister at this stage of project review? . . .

Mr. MacIsaac: I'm not sure whether they do or not to tell you the truth."⁸⁶

Accordingly, the Board will be reporting only to the federal Minister of INAC, who can if he wishes, consult other federal Ministers as stated above. Copies of this Report will also be sent to KIA (Article 12.12.1) and the GN for their use as deemed appropriate.

3.4 Jurisdiction

The Board has jurisdiction over this application pursuant to Article 12, Part 5 (Impact Review) and Article 12, Part 10 of the NLCA. Section 12.10.1 of the NLCA prohibits the issuance of licences or permits without the results of a NIRB Review, where one is required.

⁸⁵ The ministers with potential decision-making authority include: **Federal:** [CEPA, NRCan: Explosives Act, DFO: s. 30, 32, 35 Fisheries Authorization, EC: Migratory Birds Convention Act and Navigable Waters Protection Act, Nunavut Act/ NLCA/ Nunavut Waters & Nunavut Surface Rights Act, INAC: Territorial Lands Act (Mining, Lands, Land Use and Quarrying Regulations]; **GN:** [Transportation of Dangerous Goods, Environmental Protection, Explosives Use, Pesticide, Mine Health and Safety, Scientists and Wildlife Acts], **KIA** [Nunavut Land Claim Agreement: NTI Rules & Procedures for the Administration of Inuit Owned Lands under the NLCA].

⁸⁶ Transcript, pages 1028-1029. To be fair to Mr. MacIsaac, the question was a difficult one to answer.

Article 12.5.5 of the NLCA authorizes NIRB to require from the Proponent a broad range of information to complement their Environmental Impact Statement (“EIS”). The EIS requirements are established through Article 12.5.2 of the NLCA. Pursuant to Article 12.5.2(j), NIRB required that Tahera provide additional information in ten specific areas. In many cases Tahera met these requirements, but in other cases, Tahera did not. For example, the cumulative effects requirement, discussed below, necessitated Tahera’s examination of those projects: “... past, present, and reasonably foreseeable”⁸⁷ In the Board’s opinion, this required a greater examination of impacts from other projects, e.g., the Bathurst Inlet Port and Road Project (“BIPAR”) because this project is now on the Minister’s desk for Review Assessment, and if BIPAR is approved, there will be changes to transportation patterns in the Slave Geological Province, greater stresses on wildlife, and a significant shift to human use patterns in the entire regional area. In the FEIS Guidelines, the Board directed the Proponent to:

“...predict the impacts of the Project in combination with those of the other past, present, and reasonably foreseeable future projects, using the most appropriate methodology on a case-by-case basis that is capable of incorporating all of the relevant impacts. At a minimum, it shall consider the cumulative effects of: other existing and proposed diamond mines in the region, including those owned by BHP Diamonds Inc./Blackwater Group and Diavik Diamond Mines Inc., and potential future development at the Jericho site by the Proponent in the light of the results of current exploration; gold and other precious and base metal mines and deposits; the Echo Bay Mines Ltd winter road; the possible construction of an all-weather road from Yellowknife to Coppermine and a port and southern road network on the Arctic Coast, as recommended by the Government of the NWT in 1994 (O’Reilly, 1996); hunting and guiding; exploration by other companies; and the likelihood of the NWT Power Corporation’s developing some or all of the potential power sites that it has identified in the Region.”⁸⁸

INAC was quite critical of the cumulative effects assessment, and in many ways, the Board agrees with INAC, who said:

“Governments, Tahera, KIA, NTI, NIRB, NPC and other affected stakeholders should participate in further development and implementation of cumulative effects assessment and monitoring initiatives related to the Slave Geological Province.”⁸⁹

⁸⁷ NIRB letter to Tahera Corporation, October 15, 2002. Point # 5. See footnote # 28.

⁸⁸ See Section 4.22 - Cumulative Effects Assessment in the *Environmental Assessment Guidelines for the Jericho Diamond Project*, at p. 29.

⁸⁹ INAC Submission, November 10, 2003. Section 5, Recommendation # 41, pg. 68. The Supplemental Information and the Addendum to the Environmental CEA prepared in September 2003 concluded that cumulative effects from the Project would be minor on a local scale and negligible to minor on a regional scale. Although there are improvements in the information provided, the original conclusion that the Proponent has not provided a rigorous assessment of potential cumulative effects remains unchanged.

3.5 Board Mandate and Key Objectives

Article 12 established the Board with Primary Functions,⁹⁰ including the “purposes” or Objectives section. That section, referenced in other places in Article 12, states:

“In carrying out its functions, the primary objectives of NIRB shall be at all times to protect and promote the existing and future well-being of the residents and communities of the Nunavut Settlement Area, and to protect the ecosystemic integrity of the Nunavut Settlement Area. NIRB shall take into account the well-being of residents of Canada outside the Nunavut Settlement Area.”⁹¹

The term ‘ecosystemic’ is also defined in Article 12.1.1, which states:

“ecosystemic means relating to the complex of a natural community of living organisms and its environment functioning as an ecological unit in nature.”

In other words, for impact assessment, the Board will look at the management of Nunavut’s resources in a way that assumes there is interdependency between the different parts of the environment: air, land, water, wildlife and people. The Board believes that resources such as diamonds can be extracted from the Territory, with the goal to promote regional economic prosperity, but even then, the health of humans is a part of the Board’s analysis and is vital as it will always be a key part of the promotion of

INAC concludes that Tahera has not adequately demonstrated that it has obtained, reviewed and analyzed all relevant data relating to the cumulative environmental effects of the Jericho Project, particularly data regarding population viability of grizzly bear, the cumulative effects assessment related to the Snap Lake Diamond project (i.e. the most recent CEA conducted in the Slave Geological Province), and the Report on EA and Reasons for Decision on the De Beers Canada Mining Inc. Snap Lake Diamond Project (July, 2003) prepared by the MVEIRB. A number of fundamental weaknesses in the CEA, particularly with respect to the methodology, assumptions and justifications have been rectified to some extent in the 2003 Addendum. The Addendum provides for a more traceable and reproducible CEA. Notwithstanding the additional analysis, the analysis of cumulative effects remains very qualitative, simplistic and does not build on the data, methods, techniques used in previous CEA. Moreover, the Proponent has not adequately described its mitigation measures or plans for follow-up monitoring that would provide confidence that potential adverse environmental effects can be adequately managed.

⁹⁰ For example, Section 12.2.2 states:

The primary functions of NIRB shall be:

- (a) to screen project proposals in order to determine whether or not a review is required;
- (b) to gauge and define the extent of the regional impacts of a project, such definition to be taken into account by the Minister in making his or her determination as to the regional interest;
- (c) to review the ecosystemic and socio-economic impacts of project proposals;
- (d) to determine, on the basis of its review, whether project proposals should proceed, and if so, under what terms and conditions, and then report its determination to the Minister; in addition, NIRB’s determination with respect to socio-economic impacts unrelated to ecosystemic impacts shall be treated as recommendations to the Minister; and
- (e) to monitor projects in accordance with the provisions of Part 7.

⁹¹ Section 12.2.5 of the NLCA.

ecosystemic integrity.

The term ecosystem is not new to environmental assessment Boards, or even Courts in Canada. In 1989, the Alberta-Pacific Environmental Impact Assessment Board (“AIPac”) reviewed a Pulp Mill proposal in Alberta with impacts in the Northwest Territories. In its report, the AIPac urged the government to use an ecosystem approach in assessing impacts from the mill particularly on water quality. The federal-provincial Board said this at page 77:

“The principle of using an ecosystem approach to environmental management demands more holistic terms of reference for environmental reviews. (An ecosystem approach is one, which includes full consideration of all components of the environment and of the proposed development at once, rather than an approach, which attempts to analyse difference components in isolation. An example of an ecosystem approach used by some jurisdictions is management by watersheds.)”

The importance of ecosystems is illustrated by the inclusion of the term in federal legislation. The preamble of the *Oceans Act*⁹² specifies the application of the precautionary principle relative to the conservation, management and exploitation of marine resources in order to protect resources and preserve the marine environment, and to do so upon the *ecosystem* approach. Several other federal statutes provide definitions based upon interacting components of the environment; this includes the *Canadian Environmental Protection Act* (“CEPA”)⁹³, and the *Canadian Environmental Assessment Act* (“CEAA”).⁹⁴

The fundamental importance of protecting ecosystems has long been established (see, for example, the Bruntland Commission Report⁹⁵) and courts in Canada are now discussing the precautionary principle when deciding environmental cases. For example, the Supreme Court of Canada in *Spraytech*⁹⁶ discussed the precautionary principle in these terms:

“In order to achieve sustainable development, policies must be based on the precautionary principle. Environmental measures must anticipate, prevent and attack the causes of environmental degradation. Where there are threats of serious or

⁹² S.C. 1996, c. 31.

⁹³ RSC 1985 c. 16 (4th Supp) as am.

⁹⁴ RSC 1992, c. 32, s.2 as am.

⁹⁵ The World Commission on Environment and Development, *Our Common Future*, (Oxford: Oxford University Press, 1987).

⁹⁶ 114957 *Canada Ltée (Spraytech, Société d'arrosage) v. Hudson (Town)* [2001] S.C.J. No. 42.

irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.”⁹⁷

Canada advocated for the inclusion of the precautionary principle during negotiations for the 1990 Bergen Conference on Sustainable Development and the principle has been codified in several items of domestic legislation.⁹⁸ Federal Courts have also referenced the term ecosystem in at least one case regarding an injunction on a fisheries matter.⁹⁹

Sustainable development as a concept received huge notoriety in 1987 with the Bruntland Report, but the principle likely arose from the greater belief in impact assessment as an environmental management tool following the 1972 Stockholm Conference on Human Environment and the World Conservation Strategy in 1980. The Board points out this well-known history simply to explain the significant historical antecedents to NIRB's ecosystem mandate.

With this highlight on the importance of maintaining ecosystemic integrity, which is a premise of the impact assessment law in Nunavut, and knowing Tahera is committed to the long-term protection of the ecosystem,¹⁰⁰ with the Jericho Project traversing seven ecological zones,¹⁰¹ the Board will now discuss different aspects of the project as contained in the Final EIS and discussed through supplementary filings or in the Final Hearings. In drafting specific Terms and Conditions for this project, and indeed in deciding whether or not it should be approved, the Board constantly remembered its ecosystem mandate. This mandate gives the Board the obligation to protect northern food systems, enhance diversity, and develop and implement preventative and adaptive strategies to respond to mining development in Nunavut.

⁹⁷ *Spraytech*, at para 31.

⁹⁸ See for example the Oceans Act, S.C. 1996, c. 31, Preamble (para. 6); Canadian Environmental Protection Act, 1999, S.C. 1999, c. 33, s. 2(1)(a); Endangered Species Act, S.N.S. 1998, c. 11, ss. 2(1)(h) and 11(1).

⁹⁹ *North of Smokey Fisherman's Assn. v. Canada (A.G.)* [2003] FCJ No. 40, 2003 FCT 33, (F.T.D.) January 15, 2003. The motion for injunction was dismissed.

¹⁰⁰ For example, in answering questions from the Department of Fisheries and Oceans, Tahera's expert K. Sexsmith stated this in answering questions about pit water discharge:

“And if [water quantity and quality issues from the pit closure] is at a level where there is any residual risk to the aquatic ecosystem, there will probably be long-term monitoring requirements that extend well beyond the closure period.” Transcript, page 757.

¹⁰¹ The ecological zones in the Jericho study area include lakes (aquatic), grass/sedge meadow (wet), birch meadow (moist), beach shoreline (moist), barrenland tundra (dry), rocky tundra (dry), eskers (dry), and cliffs, rocky hills (dry). Source: FEIS, Table A1.

3.6 Air Quality

According to Tahera, there will be no major problems with air quality. Potential sources of airborne contamination come from blasting dust, operations dust, dust from stockpiles, and exhaust.¹⁰² The cumulative effects assessment in the FEIS was slim in detail, and it merely referred back to the original modeling assessment.¹⁰³ Essentially, Tahera used modeling to predict impacts, and it referred to United States Environmental Protection Agency (“USEPA”) model for Industrial Source Complex to predict effects from mining. Even so, and assuming the USEPA model works for northern mines, which the Board doubts, there may be areas of nitrogen oxide concern, for example next to the processing plant.¹⁰⁴ Further, distribution and dispersion of NO_x from explosives is also uncertain.¹⁰⁵

For example, in the written submissions filed and oral evidence produced at the Hearing, several parties raised the following air quality concerns.

HC expressed concerns regarding the possible harmful effects of NO_x, SO_x, CO and PM_{2.5} upon the health of mine workers. The Proponent concluded that a health assessment of air quality was not necessary since there will be no sensitive receptors near the mine site.¹⁰⁶ HC disagreed with this conclusion and pointed out that the mine site will be inhabited with workers. Accordingly, HC requested that direct and indirect health impacts of changes in air quality be taken into account in project management and that measures to protect workers from the harmful effects of NO_x, SO_x, CO and PM_{2.5} are included in the Occupational Health and Safety Plan.¹⁰⁷

In its Technical Review of the Supplemental Report, EC reiterated its concerns regarding the Proponent’s use of screening meteorological data for air quality modeling instead of onsite meteorological data. EC explained the differences between the two methods and the Board agrees as follows:

¹⁰² FEIS, pages 35-36.

¹⁰³ FEIS, page 67, section 3.6.6.1.

¹⁰⁴ FEIS, page 36.

¹⁰⁵ FEIS, page 37.

¹⁰⁶ See section 4 of the proponent’s Air Quality Assessment Response to Questions and Information Requests.

¹⁰⁷ Letter dated Nov. 10, 2003, from Ms. Janice Traynor, Environmental Scientist for Indian and Northern Affairs Canada, to NIRB regarding the Jericho Diamond Mine Supplement to the FEIS at p. 2.

“Screening meteorology is a fictitious data set designed to include virtually every possible meteorological situation, yet it is not representative of a given location. Using screening meteorology in air quality models tends to predict conservative ambient concentrations that are not necessarily realistic. Generally, if the screening predictions exceed ambient air quality guidelines, as is the case for Jericho, then more refined modeling is conducted using more representative meteorology.”¹⁰⁸

EC noted that, due to similar concerns, two companies with mines in the area, Ekati (BHP) and Snap Lake (DeBeers), have recently reassessed their air quality monitoring programs and have committed to relocating monitoring sites according to those regions most likely to be impacted by mining activities. Both companies are doing so in consultation with various government agencies and stakeholders. EC’s submission urges Tahera to follow suit:

“Environment Canada encourages Tahera to follow the example being set by BHP and DeBeers. Tahera needs to commit to consulting with stakeholders and redoing the air quality modeling with onsite meteorology before designing its air quality monitoring program.”¹⁰⁹

At the Cambridge Bay Hearings, EC addressed other air quality issues such as the need to minimize emissions, including greenhouse gases, through the use of low sulphur diesel fuel and by employing the best available technology appropriate to the design of Tahera’s facilities.¹¹⁰

Another air quality concern, which was highlighted by EC as well as other parties, is the adequacy of the monitoring program. According to EC, Tahera’s response in the Supplemental Report to requests for additional information regarding the final monitoring program, lacked sufficient detail. A number of parties, such as KIA, HC, NTI, and EC, voiced concerns over the fact that the Proponent did not include PM_{2.5} in the list of emissions to be monitored. It should be noted that Tahera agreed to monitor these emissions as a result of discussions during the Hearings, and the Board is assuming without further discussion that Tahera will honour this and other commitments Tahera

¹⁰⁸ Environment Canada: Technical Review of Tahera Corporation – Jericho Diamond Project Final EIS Supplemental Report, November 10, 2003 at p. 22.

¹⁰⁹ EC Technical Review at p. 22.

¹¹⁰ Presentation made by Ms. Wilson of EC at the Jan. 7 Cambridge Bay hearing. See pp. 493-494 of the transcript. EC recommended that Tahera consider a combined heat and power (CHP) system in order to maximize energy efficiency and reduce the emission of greenhouse gases. The Board agrees with this recommendation.

made at the Hearings.

The Land and Environment Committee of the Dene, expressed concerns over the effects of road dust on vegetation and questioned whether Tahera had considered the use of BHP-B, a non-toxic chemical dust suppressant, more effective than water for keeping down dust on mining roads.¹¹¹

In addition to road dust, Board members raised questions during the Hearings regarding emissions blowing from waste rock and other piles of rock¹¹² and these concerns still exist. Accordingly, the Board will be requiring Tahera to install, fund, and operate an air quality monitoring station at the mine site, in the location of the design chosen by EC. Overall, the air-monitoring program must be flexible and adaptable enough to allow for changes in the future, should unanticipated problems arise. The results of any air quality monitoring should be reported to the NIRB Monitoring Agent as described later in this Report. It goes without saying that any air quality parameters regarding workplace conditions as legislated by the Territorial Government must be met. The same is true for noise impacts, described next.

3.7 Noise

Tahera's FEIS describes the impacts from noise as manageable and changing during the life cycle of the mine. Sources of noise include blasting, machinery, vehicles, the diamond processing plant, aircrafts from time to time, and miscellaneous noises.¹¹³ From a cumulative perspective, the other major potential contributor is the Lupin mine site, 25 km away, and this site is currently closed. Therefore, the Board believes cumulative impacts from noise, apart from those of the BIPAR project, which Tahera did not discuss adequately, are not likely to be major.

Obviously, the mining operations' noise will be greatest to humans who work at the site, and they will be offered hearing protection, which would be an occupational safety requirement. From a wildlife perspective, however, the "... residual effects from noise

¹¹¹ Submission of the Yellowknives Dene First Nation: Environmental Assessment of Tahera's Proposed Jericho Diamond Mine, to NIRB, dated Nov. 10, 2003 at pp.5-6.

¹¹² See pp. 752-753, 864-894, 988-989 of the hearing transcript.

¹¹³ FEIS, pp. 38-40.

will be significant for animals that avoid the noise, limited.... to the mine site, and life of the mine.¹¹⁴ This is a concern of the Board.

Other parties raised concerns about noise, and these included the impacts of noise or ground movements on fish and wildlife. These concerns were discussed at the January 9, 2004 Hearing in Gjoa Haven where parties raised questions regarding the effects of blasting, drilling and truck noise on fish and caribou. Ms. Avalik expressed concern over the effects of blasting on the safety and migration routes of the caribou:

"I just want to make a comment in regards to the caribou herd, because year after year they don't change their migrating route, because if the migrating herd is disturbed by the mine, they are going to be confused as to which way they are going to go next if they have to change their migrating route, and when they start running away from an area, they might fall over a cliff, and some of the rivers are very strong. So that's the concern I have, if the caribou migrating herd is being disturbed from the mine there when they have to change their route, what's going to happen there?"¹¹⁵

Similarly, a number of questions were raised about the effects of blasting, truck noise and vibration on aquatic life.¹¹⁶ The DFO had this to say at the Hearings about the use of explosives:

"Now, the negative impacts associated with blasting come from two -- come for two reasons, one is what's called the peak particle velocity, and that's essentially vibration caused by the blast. The concern here is for eggs, the eggs are sensitive to the vibration and can be killed. ...The second component of the concern related to use of explosives, is what's referred to as the instantaneous pressure change, and that's the shockwave as a result of the blast, and this is the component of the blast that we are concerned with when we think of adult fish or juvenile fish, but non-egg fish because it is the shock wave that affects the internal organs especially the swim bladder."¹¹⁷

In short, noise impacts are a concern to NIRB and the Board Monitoring Agent will be overseeing noise impacts and reporting back to the Board.

¹¹⁴ FEIS, page 80.

¹¹⁵ Comments made by Ms. Avalak during the Jan. 9 hearing at Gjoa Haven. See pp. 995-996 of the transcript.

¹¹⁶ See pp. 746-747, 753-756, 999 of the hearing transcripts.

¹¹⁷ Presentation by DFO at the January 6, 2004 Hearings in Cambridge Bay. See pp. 419-420 of the transcript.

3.8 Wildlife and Fish Habitat Concerns

Wildlife is abundant at the Jericho Project site. According to Tahera, the abundance though is seasonal. There are raptors (golden eagle and gyrfalcon); with a raptor-nesting site above the winter road, caribou migrating through the site, and sometimes in dramatic numbers; migratory birds exist; and small mammals resident throughout the year.¹¹⁸

During the Hearings the Board saw photos and heard tales of huge numbers of caribou passing through the site, including in 1996 when 50,000 caribou spent 12-18 hours at the site.¹¹⁹ This is significant and catches the attention of the Board as much or more than any other impact at the site. The Board has a significant concern over the incremental loss of habitat of the Bathurst caribou herd, part of which travels through the project area due, among things, to geographical or corridor constraints.

Carnivores also move through and around the site, and there are four grizzly dens close to the site. Bears and bear sign have been observed at the site.¹²⁰ Other carnivores are expected to visit or den near the site.¹²¹

Several parties commented upon the inadequacy of wildlife studies, including from a transboundary perspective, which concern the Board shares. For example, the Dene identified a number of wildlife issues with transboundary impacts. At the Hearings in Cambridge Bay a consultant for the Dene outlined these issues:

“So the concerns of the Yellowknives Dene First Nation regarding Jericho project could be probably lumped into, I guess, three categories, all of which are transboundary issues, not necessarily local issues in Nunavut, but things that can affect migratory caribou, migratory birds, air, which of course air does not hold to think boundaries as such, and also the contribution of this project to increasing traffic on the Tippet/Contwoyto winter road.”¹²²

The Board shares the Denes’ concerns about the impact of potential diesel and gasoline spills along the winter road upon the wildlife that frequent the area and the water bodies

¹¹⁸ FEIS, pages 43-44.

¹¹⁹ FEIS, p. 45.

¹²⁰ FEIS, p.46.

¹²¹ FEIS, p.46.

¹²² Presentation by Mr. Byers at January 7, 2004 Hearings at Cambridge Bay. See p. 620 of the transcript.

lying adjacent to the roadway. This is of particular concern to the Dene because, "... much of the winter road ... follows traditional Yellowknives Dene dog sled and canoe routes along the Courageous River north from Great Slave Lake to the barren lands."¹²³

Regarding impacts to migrating caribou, the Dene had this to say:

"Now, road crossings are -- have always been a very big issue to the Yellowknives Dene as far as road crossing for caribou, so that caribou can safely cross roads. It has being something that has been talked about at length with other diamond mines in the NWT. And as such, we would just like to bring to the attention of Tahera and others that this is a concern of ours. The Yellowknives Dene do not want there to occur any impediment, any barriers to caribou movement through the region. Caribou are very important to the Yellowknives Dene harvesters."¹²⁴

Further, an Elder from the Dene said this, through a translator, about concerns over caribou that are impacted from the Jericho site and others across the Northwest Territories border:

"... the Yellowknife people like the Yellowknives Dene and the Inuits are very much the same because both people have been using caribou to live with or to live by ...he is very concerned about the caribou because both sides use it. ...any diamond mines that comes up on either side of the border, both sides have to respect and try to make sure that there is no ...[interference] in the caribou's migration ...and make sure that there is no chemicals entering the caribou because both sides have been living on caribou for thousands of years. He said ...that he is very concerned about the chemicals that might be entering into the atmosphere, into the waters that migrating caribou ...might pick up on. He says he is very concerned with ...the contaminants because he is not a doctor, and ...he wouldn't know how to tell the infected caribou from a healthy caribou ...He is also saying that because the mines or the winter road start from around Yellowknife, he is very concerned about ... the maintaining of the road, and he is saying that if there is a mine that's going to maintain the road in good health and all -- with all other companies that are involved, he just wanted to say that since, you know, he has been living in Yellowknife all his life ...he is concerned mostly about the cumulative effects it might have on the winter roads with all, like, the hunting that's been going around Yellowknife, and the caribou population has dropped, and he is very concerned about the caribou itself."¹²⁵

At the Cambridge Bay Final Hearings the Dene summed up many of their concerns regarding impacts to wildlife by stating:

¹²³ Presentation by Mr. Byers at January 7, 2004 Hearings at Cambridge Bay. See p. 621 of the transcript.

¹²⁴ Presentation by Mr. Byers at January 7, 2004 Hearings at Cambridge Bay. See p. 624 of the transcript.

¹²⁵ Comments made by Mr. Baillargeon, through Mr. Goulet as Translator. See transcript of January 7, 2004 Hearings at Cambridge Bay, at pp. 635-636.

“Contamination in animals, especially animals that Dene people eat, has always been a concern for Yellowknives Dene First Nation people. When mines are not managed properly, contamination of water, plants and animals can result. Yellowknives Dene have had a long history of mines in their backyard, from gold mines to the present diamond mines. Yellowknives Dene see the examples every day close to home, they need ... not look any farther than Giant Mine to experience firsthand the huge environmental problems created, affecting Dene harvesting of plants, animals and even of drinking of water around that particular mine site.”¹²⁶

Others also had significant concerns about wildlife. KIA’s presentation made it clear that wildlife was an issue that had to be protected at the outset and monitored during and after the mine closure; in one recent case a grizzly bear apparently walked down the halls of Tahera’s camp building; the bear fence had obviously failed.¹²⁷ Unfortunately, some bird nests will also be displaced.¹²⁸ Several Elders raised concerns about wildlife, including fish. For example, an Elder in Cambridge Bay said this:

“This gathering, public hearing, is a huge event, heavy issues, they have to be looked at very carefully, not haphazardly. ...What I want to say is ...this final public hearing is a major event because it will encounter the project, which is of great dimension, I guess. They do things and talk about things that is foreign to us, a lot of strange concepts. We talk about wildlife with regard to Elders, Aboriginal people, it will all be affected, impacted in one way or another, this is a big concern. Rules and regs need to be developed, mining companies, the industry and the items we are discussing. The dams, lakes usually are not need to be dammed and diked. It is the use of explosives and that type of material that needs to be dammed. It is hard to express sometimes and to try and explain and simplify or -- when you first hear about these things, it is heavy topics. We must take the time to consider everything carefully. ... It is your job, ...it is your responsibility, so take the due consideration and careful consideration. And I want to say in our -- the lands of the Aboriginal people, we talk about the fish when certain lands or lakes are being constantly used, the fish can encounter difficulty, they either get too thin or they don't grow as fast, it is like that, we know that, I know that. I have visited other projects sites and to other lands, and the caribou that we have lived on, the Inuit have lived on, we use it since when? Since time began caribou was our staple and the fish and the animals, that was our mainstay on the land, that's what we depended on. The land is our

¹²⁶ Presentation by Mr. Byers at January 7, 2004 Hearings at Cambridge Bay. See p. 627 of the transcript.

¹²⁷ Mr. Clark, Environmental Screener with KIA, made these comments at the January 8, 2004 Hearings in Kugluktuk: “For wildlife monitoring, there have been many comments in Cambridge Bay and here from Elders and others that ... there are many caribou in the area and caribou commonly use this area. I can tell from my brief experience at the mine site last year ... there was a bear fence around the Tahera main camp, but in fact, the bear fence wasn't working... And the day that we had arrived, the previous day, a grizzly bear got into the main buildings and went all the way down a main hall ... through the entire building to where people were staying and ... the person staying there had to fire a rifle or to hit it with a rifle because he couldn't get the gun to work to get it to leave. And also in the camp there is a photo of wolves catching caribou right in the project site, and these are examples of how wildlife use the area. And it also highlights the need for an adequate wildlife monitoring program, and that the agencies responsible for wildlife are ensuring that Tahera is doing their best to not affect wildlife.” [pp. 809-810]

¹²⁸ See: Mr. Hubert’s oral testimony at pp. 305-306 of January 6, 2004 Cambridge Bay hearing transcript.

foundation.”¹²⁹

And several Elders in Kugluktuk said this:

“One time from Cambridge Bay, three Elders and three from Bathurst Inlet and three from Kugluktuk, we went down ...to Tahera exploration site a few years ago. I was one of those Elders. There was caribou within the area - I saw for myself. The caribou will continue to flourish if it is well respected and maintained. We stayed there for only one day ... We saw many -- lots of caribou, and some were in the waters and crossing the lakes and so on. The Elders ... they said it was just like bubbling or if you can call that to say -- describe the sound of the lake. It was just -- they sang a song, an old time Elders' song, a drum dance song actually. Because that was the name of the lake, it is like a gushing or sound of the lake. I have never lived there in that area. But the Elders know, they have a song about that area. It would be nice to hear that song. ... The area that we saw, if it is not destroyed and damaged.”¹³⁰

The Board understands the need for fences to protect the borders of a mine in order to impede caribou, but this could be easier said than done. At the Hearing, Board member Paneak said this:

“...the caribous are very sensitive to anything foreign that's in their way, in their path. Like, if there is anything that is in their route ... a piece of rope, a piece of wood ... anything that is foreign to them in their path, they always escape from the traditional path. Their regular route is when they are moving. Like, if I was to place any kind of fence, caribou will not come back, and it would affect their habitat, they will not come back. They would be scared to come back.”¹³¹

Among the key concerns with wildlife, is that there was a mild disregard for cumulative effects across borders, including, as EC pointed out, defects in data regarding birds.¹³²

For example, the Board would have expected more than mere citations to Diavik or BHP, because there are now several mines that line up geographically in a row that more or less traverse the caribou migration. In the Board's mind, the treatment of studies and data collection for caribou should have been far more intense, for example,

¹²⁹ Presentation by Mr. Koihok at January 6, 2004 Cambridge Bay Hearings. See pp. 375-377 of the transcript.

¹³⁰ Comments made by Ms. Ahegona at January 8, 2004 Kugluktuk Hearings. See pp. 714-715 of the transcript.

¹³¹ Comments made by Mr. Paneak, at January 6, 2004 Cambridge Bay Hearings. See p. 338 of the transcript.

¹³² For example, Environment Canada in its written submission stated that the baseline migratory bird data is inadequate and, as a result, the proponent's conclusions regarding impacts to migratory birds are not verifiable. This deficiency was recognized by EC after a review of the FEIS. EC made a number of recommendations to rectify the deficiency, however, the proponent did not follow these recommendations and the Supplemental Report failed to resolve the issue. See: EC Technical Review at p. 22.

there should have been a discussion of the potential for not only the Bathurst herd, but also the other herds that might migrate into the project area. If so (and only monitoring will tell) there is a need to be cautious before approving mining projects in this Bathurst area generally, because the caribou is a staple for Inuit people.

The Board is also concerned with the lack of pre-1995 caribou data. Tahera admitted under questioning in Kugluktuk, that it did not use this data. In answer to the Board's question of whether the baseline data from Ekati showing migration routes prior to 1995 was used, Mr. Hubert for Tahera said: "No, the pre-1995 data for the Bathurst caribou were basically general information that described the herd's distribution but wasn't specific to either site."¹³³

The comments made at the Hearings, especially from Elders, are a compelling endorsement of the significance of caribou to Inuit, most of which hunt and fish in this area. The Board gives great weight to such comments from Inuit because northern ecosystems and climates are particularly harsh, and their ecosystemic needs are unique. The Board believes that the loss of even a few fish or little wildlife can affect an entire regional ecosystem, which is the reason for emphasis in this area regarding Terms and Conditions.

As it relates to wildlife, Alice Ayalikiquaq (Kugluktuk) grew up around the project area (Contwyoto Lake) and she and her parents hunted a lot, set fish nets, and in the Board's mind tabled legitimate questions about the protection of wildlife.¹³⁴ The local MLA for Kugluktuk,¹³⁵ and the Government of Nunavut,¹³⁶ all raised concerns over wildlife.

In summary, it is for this cultural evidence and for regional and transboundary concerns that the Board has added stringent Terms and Conditions for Wildlife, and for Fisheries.

¹³³ Comments made by Mr. Hubert during January 8, 2004 Hearings in Kugluktuk. See p. 740 of the transcript.

¹³⁴ Comments made by Ms. Ayalikiquaq at January 8, 2004 Hearings in Kugluktuk. See pp. 786-788 of the transcript.

¹³⁵ Comments made by Mr. Ahviyak at January 8, 2004 Hearings in Kugluktuk. See pp. 783-784 of the transcript.

¹³⁶ Comments made by Mr. MacIsaac at January 8, 2004 Hearings in Kugluktuk. See pp. 831-832 of the transcript.

3.9 Fish and Aquatics

Tahera, to its credit, admits several fisheries impacts:¹³⁷ direct effects, such as mortality, loss of fish habitat, water withdrawal, blasting effects on fish eggs, effects on fish in Stream C1, Lake C1, and Carat Lake in the vicinity of the Pit, PKCA discharge, intake causeway construction, mine effluent effects, airborne contaminants, and of course, the loss of Long Lake which will be removed as fish habitat. Along with this will be sedimentation problems, and TDS problems, about which EC correctly questioned the proponent.¹³⁸

Along with wildlife, the Board has concerns with any loss of fish habitat, and in cases where the streams are being diverted, and Long Lake permanently changed, the Board would have preferred that there be no ambiguity in terms of the design and mitigation. The Proponent's lack of design details, for example, occupy a long list: (1) the potential for a PKCA settling pond and/or divider dyke (Tahera claims it is not feasible, but the Board is not sure because other experts raised it more than once);¹³⁹ (2), the Proponent is still designing the Northwest Dam spillway which will likely require a blasted channel through bedrock around the northern side of the dam; (3) land based facilities; (4) the Stream C1 diversion, and so on. Regarding diversions, channels and culverts, the Board believes even a simple dyke or culvert affects fisheries because it changes water patterns, habitats, and obviously affects water quality. Even the courts have recognized this.¹⁴⁰

Some of these effects are *residual*, for example, direct mortality of fish and fish eggs, loss of habitat through sedimentation, and lowered production of invertebrates due to water quality problems. Also, should a diffuser become necessary, the 14 meter diameter mixing zone is in the Board's mind not a mitigating measure that the Proponent should take for granted, nor is it simple enough to say that it is a small zone, or a zone that is limited to a finite number of fish, or that dilution as a matter of principle, is O.K.¹⁴¹

¹³⁷ FEIS, pages 50-61.

¹³⁸ See: Ms. Wilson's cross-examination of Tahera at January 6, 2004 Hearings at Cambridge Bay at pp.244-245 of the transcript.

¹³⁹ KIA, NTI and DFO.

¹⁴⁰ As it relates to water quality, see e.g. *Boise Cascade Ltd. v. R.* (1994) 14 C.E.L.R. (NS) 93 (Ont. Gen Div.).

¹⁴¹ Mr. Pattenden, the proponent's aquatics consultant, made this statement regarding the mixing zone at the Jan. 5 hearing at Cambridge Bay: "There is no important fish habitat out there, although I'm sure fish

As a matter of principle, in Nunavut, it is not “O.K.” to use a mixing zone unless until all other mitigation options and design options are explored.

Once again, the Board heard and accepts evidence from aboriginal interveners that fisheries are critical to their way of life. In Cambridge Bay, an Elder said this about fish:

“Fish are harder to predict [than caribou], and, you know, if a stream or a lake is affected, fish in five years or ten years, I mean, they may get smaller and not grow as much. When only one lake is being used or impacted, the fish will get smaller or not get fat and increase in size, that's what you are talking about, and same with the water. We have to work on this very carefully, you the Board, your employees, -- you all have responsibility for our lands in one way or another.”¹⁴²

In Kugluktuk, and notwithstanding the different region, we heard from Elder Ahegona who voiced concerns regarding the quality of water and its impact on the fish:

“... along the river in the summer ... some of the water has changed ... when it is windy ... there is soap suds all along the banks of the river ...it used to never be like that. ... You see, on occasion, dead fish floating downstream. What is causing that? We have to be very careful and start monitoring this. We don't want to see contaminants flowing into our streams and ending up in our river because we can't stop -- seem to stop the mining industry now.”¹⁴³

DFO identified a number of concerns relating to fisheries and aquatics, including: components of the proposed system for the treatment of PKCA discharge; impacts to fish and fish habitat associated with road construction; habitat compensation plan; water quality; and the aquatic effects monitoring (AEM) plan.¹⁴⁴ Lack of detail in Tahera's EIS documents did not allow for the full assessment of potential environmental impacts and their mitigation. As a result, DFO recommended:

“Alternatives to PKCA discharge (treatment options) and control of sediment need to be fully investigated. A complete characterization of all waste streams is needed as

frequent the area. So the potential impact is the water quality discharge may result in loss of fish habitat and reduced fish health in Carat Lake. The impact would be mitigated by diluting the concentrations using a diffuser. The impact would be restricted to the mixing zone, which is approximately a seven metre radius, and the impacted area is not important to fish and is not used by large numbers of fish. Based on that information, we concluded there was no significant impacts on fish.” See p. 95 of the transcript.

¹⁴² Presentation by Mr. Koihok at January 6, 2004 Cambridge Bay Hearings. See p. 377 of the transcript.

¹⁴³ Comments made by Ms. Ahegona at January 8, 2004 Kugluktuk Hearings. See p. 715 of the transcript.

¹⁴⁴ See: Executive Summary of the Technical Review of the Jericho Diamond Project by Fisheries and Oceans Canada, at pp.1-2. Regarding the proposed system for the treatment of PKCA discharge, DFO's Technical Review identifies the Stream C1 Diversion, PKCA Facility and Carat Lake Causeway Plans as problematic.

is the assessment of impacts on the receiving environment. As well, the AEM should be designed to provide a sensitive tool for detecting change and allow for the early implementation of adaptive management. Tahera will need to undertake a complete accounting for impacts to fish habitat and develop a compensation plan that will meet the No Net Loss guiding principle of DFO's habitat management policy."¹⁴⁵

A number of other parties continue to express concerns over certain aspects of the proposed system for the treatment of PKCA discharge and the resulting impacts to water quality.¹⁴⁶ The Board shares these concerns.

3.10 Abandonment and Reclamation

Reclamation understandably will occur throughout the later years of the mine life. For example, limited reclamation will occur in the early years, when the mine is being constructed, but following the open pit phase of mining, in year 4, there will be a major push to begin reclamation.

General reclamation involves salvage and stockpiling of soil; revegetation of key areas; resloping of rock dumps; recovering stock-piled soil; establishing test plots; and so on.

During the Hearing, some people raised concerns with reclamation.¹⁴⁷ For example, concerns were raised regarding: the future of the holding ponds,¹⁴⁸ security and third party estimates of cost,¹⁴⁹ reclamation of the PKCA,¹⁵⁰ revegetation,¹⁵¹ reclamation of the pit berm,¹⁵² impacts of the waste dump on caribou migration,¹⁵³ safety of the pit water for wildlife,¹⁵⁴ and recontouring.¹⁵⁵

In general, as long as bonding is sufficient and based on third party contractor costs, the Board feels much of the reclamation can be left to the regulatory phase, and especially to the NWB who looks at dams, dykes, security, and with this critical issue, NIRB

¹⁴⁵ See the Conclusion of the Executive Summary of the Technical Review of the Jericho Diamond Project by Fisheries and Oceans Canada, at p.6.

¹⁴⁶ For example see: The Executive Summary of INAC's Technical Review of the Jericho Diamond Project, Submission to NIRB, dated November 10, 2003, at pp. ii-iii; pp. 8-12, 21-23.

¹⁴⁸ See hearing transcript at pp. 253-254.

¹⁴⁹ See hearing transcript at pp. 266-268, 545, 832, 1023.

¹⁵⁰ See hearing transcript at pp. 352-353, 545, 806-807, 880, 1059.

¹⁵¹ See hearing transcript at pp. 354, 545, 832, 1023.

¹⁵² See hearing transcript at pp. 545, 990, 1059.

¹⁵³ See hearing transcript at p. 545.

¹⁵⁴ See hearing transcript at p. 756.

¹⁵⁵ See hearing transcript at p. 832.

believes, and the Terms and Conditions show, the need for full cost reclamation by Tahera. NIRB received evidence that an INAC policy states that taxpayers should not be required to pay for any of the cost of Reclamation. The INAC Nunavut Mine Site Reclamation Policy, with which NIRB fully agrees, states:

A key element of the Plan is the relationship between the closure and reclamation obligations, and the financial security provided to ensure the liability for reclamation remains with the mining company.¹⁵⁶

3.11 Monitoring

Monitoring is a key issue in Tahera's FEIS; it was cited in several sections, including: biophysical impact assessment,¹⁵⁷ environmental cumulative effects assessment,¹⁵⁸ environmental management and mitigation,¹⁵⁹ reclamation and closure,¹⁶⁰ socio-economic impact assessment,¹⁶¹ and socio-economic monitoring.¹⁶²

Several parties in their submissions and at the Hearings urged the Board to ensure monitoring is fulfilled, even by NIRB itself.¹⁶³ The areas of particular concern are: water quality, vegetation, wildlife, air quality and aquatic effects.

The DFO urged the Board to ensure the Proponent monitors water quality and aquatic effects and drew the Board's attention to the stringent water license recommendations made recently by the Mackenzie Valley Environmental Impact Review Board ("MVEIRB") regarding the mine at Snap Lake, which suggest a tightening of the industry standard.¹⁶⁴

HC, EC, INAC, KIA, NT and the Dene also addressed the issue of monitoring. As mentioned earlier, due to these parties' concerns over air quality, Tahera has agreed to monitor for PM_{2.5}. Dust from mining activities was mentioned by the Dene as something that should be monitored and mitigated. At the Cambridge Bay Hearings these comments were made:

¹⁵⁶ Indian and Northern Affairs Canada. 2002. *Mine Site Reclamation Policy for Nunavut*. Page 9.

¹⁵⁷ FEIS, pp. 25-63.

¹⁵⁸ FEIS, pp. 63-72.

¹⁵⁹ FEIS, pp. 74-76.

¹⁶⁰ FEIS, pp. 85-89.

¹⁶¹ FEIS, pp. 95-97.

¹⁶² FEIS, p. 101.

¹⁶³ NTI, KIA, GN, DFO, INAC, and YK Dene First Nations.

¹⁶⁴ See: DFO's presentation at pp. 431-432 of January 6, 2004 Cambridge Bay hearing transcript.

“Finally, as we mentioned before, air quality is another transboundary issue of importance to Yellowknives Dene. I have gone through the Diavik site when they are in the midst of construction, it was a beautiful blue-sky day, not a cloud in the sky, you could see for miles and miles and miles, you could see clear to BHP. And all of a sudden, we are going along in the company van and all of a sudden there is a big, high, white cloud. What was that? Well, that was the rock crusher; all the dust coming off the rock crusher was creating this immense cloud that we drove through. So, yes, mines do create an awful lot of dust both in the crushing of rocks and travelling along roads in the summertime.”¹⁶⁵

More stringent monitoring of water quality was also urged by these parties, some recommendations being: the addition of a water quality monitoring station located downstream of Jericho Lake;¹⁶⁶ additional treatment and monitoring of Carat Lake;¹⁶⁷ further methods of monitoring phosphorus entering the PKCA, internal loading of constituents and nitrate concentrations;¹⁶⁸ and monitoring for elevated levels of ammonia for the stock piles and waste dumps.¹⁶⁹

A number of Elders and local residents expressed concerns over water quality and the impacts on fish. For example, Elder Koihok recommended that the Board carefully consider the impact of mining activities on water quality since fish are so important to Inuit and are so easily affected by contamination.¹⁷⁰ At Kugluktuk, Mr. Kilpak, a local resident, expressed concern over the changing quality of water in local lakes and rivers and urged the Board to ensure their water is not contaminated. He stated:

“We have since -- when I just moved here to Kugluktuk in 1960, our river was very clean. And to date, there is, as more and more mining companies open to the south of us that are watershed, we have started to use, you know, like solutions to keep our water clean. And we used to be able to just get ice from out in front here for drinking water long ago, but nowadays, it gets very, very -- lots of sediment in the water, and sometimes it affects the stomach if you drink. And near Bathurst, I would like consideration there that keep the environment clean because it has to be well looked after. We all know that the rivers, our own rivers, our water systems are close to potential mine site, the water travels. You must think about that very carefully, all

¹⁶⁵ Presentation by Yellowknives Dene at January 7, 2004 Cambridge Bay Hearings at pp. 632-633.

¹⁶⁶ For example, see KIA's Submission dated Dec. 1-3, 2003, at pp. 9-10.

¹⁶⁷ A number of parties expressed concern with the use of dilution for mitigation. For example, Health Canada recommended reverse osmosis in its letter to NIRB dated November 10, 2003, at p. 2.

¹⁶⁸ For example, see NTI's Written Presentation at the Cambridge Bay hearing, at p. 3.

¹⁶⁹ See: INAC's Technical Review, at p. v.

¹⁷⁰ Presentation by Mr. Koihok at January 6, 2004 Cambridge Bay Hearings. See pp. 375-377 of the transcript.

the water, water systems and the thawing.”¹⁷¹

The Dene recommended that the Proponent ensure that contaminants in vegetation and wildlife, and in particular the caribou, are monitored. They pointed out the difficulty of monitoring contaminants in a transboundary resource such as caribou and suggested a method to serve as an early warning indicator. The Dene stated at the Hearing:

“Now, contaminants... is something of such concern that we would like to see all mines contribute to contaminant studies in animals, especially caribou. Now, we have been told quite rightly by other mining companies that, yes, they see a value in doing contaminate studies of caribou; however, contaminant studies of caribou may not answer the questions we want to ask, answered. That is, caribou being long-distance travellers, if we find caribou shot at a particular -- near a particular mine site have contaminant; we can't say where those contaminants came from. If a caribou caught at, say, for example, Ekati had high cadmium or mercury, we can't say if that was from Ekati, Diavik or later down the road Snap Lake or later down the road from here. So perhaps we should get a local animal that doesn't migrate so far away from this particular mine, so we are suggesting that perhaps sik-siks could be that animal. They are considered an early warning indicator of site-specific contamination of the land. And since they do not migrate out of the immediate area like caribou, ducks or geese do, that any increase in contaminants in their bodies would indicate a source in the immediate area of the mine.”¹⁷²

The Dene concluded by asking the Board to ensure the monitoring of contaminants in wildlife.

Given the importance of monitoring to the impact assessment process, as listed in several key legislative examples, and since the Board believes monitoring is vital to the success of this process, the Board has decided to self-monitor the Jericho Diamond Project. Section 12.7.1 of the NLCA provides this authority:

The terms and conditions contained in:

- (a) a NIRB project certificate issued pursuant to Section 12.5.12 or 12.6.17;
- (b) a recommendation of NIRB pursuant to Sub-section 12.4.4(a); or
- (c) any approvals issued by the NWB, may provide for the establishment of a monitoring program for that project which may specify responsibilities for the proponent, NIRB or Government.

Thus, pursuant to section 12.7.1(a), and given the Board's great concern particularly

¹⁷¹ Comments made by Mr. Kilpak at January 8, 2004 Hearings in Kugluktuk. See pp. 712-713 of the transcript.

¹⁷² Presentation made by Mr. Buyers at January 7, 2004 Hearings. See pp. 627-628 of the transcript.

over impacts on wildlife and aquatic ecosystems, the Board will staff one full time monitoring person for the Jericho Diamond Project.

3.12 Socio-Economics

As stated earlier in section 2.1.1, the KIA and NTI engaged Rescan to review the Final EIS¹⁷³ and the Supplemental Report.¹⁷⁴ The following points relate to Rescan's second assessment. There it details several socio-economic issues, which they found to be adequately addressed.

Rescan stated that the socio-economic baseline reports in the Supplemental Report appeared comprehensive.¹⁷⁵ The studies identified in quantitative terms the indicators most likely to be influenced by fly-in/fly-out operations. Further details on the IIBA were not discussed, as at the time KIA and Tahera were in the process of negotiating it.

Rescan found the new social impact assessment ("SIA") to be an improvement, though they had the following comments:¹⁷⁶ 1) the employment and training program was still vague, perhaps because it is not possible to determine, prior to construction, which towns and hamlets in the Kitikmeot will provide what proportion of the Inuit workforce and because this issue is intended to be part of IIBA; 2) the mitigation strategy was more detailed, yet in absence of the IIBA it seemed more like a wish list, which is probably unavoidable; 3) there was no analysis of diamond market, perhaps due to the volatility and secrecy of the diamond industry (i.e. pricing). In summary, Rescan found Tahera responded adequately to their comments and recommendations on this issue.

Rescan found the new cumulative SIA to have changed little from the initial FEIS.¹⁷⁷ It still focused on employment opportunities and did not discuss the potential cumulative impacts on other socio-economic indicators.

¹⁷³ Rescan Environmental Services Ltd. *Technical Review of Jericho Final EIS*, April 2003.

¹⁷⁴ Rescan Environmental Services Ltd. *Technical Review of Supplemental Information for the Jericho Final EIS*, October 2003.

¹⁷⁵ Rescan Environmental Services Ltd. *Technical Review of Supplemental Information for the Jericho FEIS*, October 2003, Issue 118, pg. 2-48.

¹⁷⁶ Rescan Environmental Services Ltd. *Technical Review of Supplemental Information for the Jericho FEIS*, October 2003, Issue 119, pg. 2-49.

¹⁷⁷ Rescan Environmental Services Ltd. *Technical Review of Supplemental Information for the Jericho FEIS*, October 2003, Issue 120, pg. 2-51.

In its initial report, Rescan recommended that KIA ensure that communities receive copies of the IIBA and that community consultations be held. Rescan also recommended that the Community Liaison Committee contain representatives of the communities and relevant experts who can provide input to ensure the mitigation measures are implemented and maintained as long as required. Tahera provided no response on this issue in the Supplemental Report.¹⁷⁸ Rescan stated that it fell largely under the IIBA and was not discussed further.

It appeared to Rescan, in Tahera's initial report, that the Heritage Resources Impact Assessment ("HRIA") component of the Project was compiled by someone with little or no archaeological experience and was probably not reviewed by the archaeologist responsible for the work. Tahera prepared a new Heritage Resources Impact Assessment in the Supplemental Report.¹⁷⁹

Rescan, stated in their later submission, that the main issues identified in the HRIA were adequately addressed. The only data gap involved the issue of cumulative effects. The regional approach used to identify all sites is commended, but some of the data was not accurate. There were some minor errors, which are reasonable with such a database, but there were some more major problems as well. For example, 100% impact of sites associated with the Hope Bay Project was identified in the revised HRIA table.¹⁸⁰ This is incorrect because archaeological site impact is not 100% in any of the Borden blocks involved. Also, there is impact data available for the Snap Lake Project (but only a portion of this project was included in the revised HRIA table and cumulative effects assessment), the Tibbitt to Contwoyto winter road, Diavik Diamond Mine and EKATI that could have been used in this assessment.

In its later submission,¹⁸¹ the GN brought forth several socio-economic issues.¹⁸² GN states that the information offered in the SIA is incomplete, though does not conclude

¹⁷⁸ Rescan Environmental Services Ltd. *Technical Review of Supplemental Information for the Jericho FEIS*, October 2003, Issue 121, pg. 2-52.

¹⁷⁹ Rescan Environmental Services Ltd. *Technical Review of Supplemental Information for the Jericho FEIS*, October 2003, Issue 123, pg. 2-53.

¹⁸⁰ Table 5-1 Summary of Cumulative Effects of Development on Heritage Resource Sites in the Central Barren Lands, Jericho Supplemental Information.

¹⁸¹ Government of Nunavut submission, November 12, 2003.

¹⁸² GN submission, November 12, 2003, Appendix B (Comment on the Socio-Economic Impact Assessment for the Proposed Jericho Mining Project).

that the project proposal shouldn't proceed. As the SIA makes it clear that there will be adverse socio-economic effects if the project proceeds, a detailed plan for the monitoring and mitigation of these effects during the operation of the Jericho Project must be prepared.

GN states that Tahera needs specific socio-economic data collection for Nunavut. Tahera also needs to employ available data and analytical approaches that have been developed in Nunavut in the past several years.

The SIA is constrained by the absence of a clear set of policy decisions on the responsibilities of the Proponent and government for identifying and implementing mitigation. The roles of the Proponent, the territorial government and the community need to be defined for responsibilities in research and the collection of data and the analysis of SIA.

GN states that the analysis provided for the six VSECs¹⁸³ identified in the SIA is very uneven. GN suggests two additional areas for analysis: a) the continuation of the land-based renewable resource economy as a sustainable livelihood, and b) participation in community governance.

The SIA briefly details monitoring including the establishment of a socio-economic monitoring committee ("SEMC"). A Community Liaison Committee ("CLC") is referred to by Tahera in its outline for the environmental monitoring program; although it isn't clear whether this is the same as the SEMC. GN supports the creation of such a committee, more so similar to a Communities' Advisory Board ("CAB"), with a majority membership from community governments. The establishment of such a Board should not be deferred until after negotiation of an IIBA and should be part of a broader agreement between the Jericho Project and the GN. The agreement would provide for the monitoring of capital formation in the communities affected by the mine and establish indicators to help assess impacts on these communities. It will also report plans, develop/implement communications plan and define the roles of the proponent, the government and the communities. The SEMC will have to ensure that sufficient baseline data is collected to assess and mitigate impacts.

¹⁸³ VSECs identified in Jericho Supplemental Information: Employment opportunities, education and training, contract and business opportunities, community health, and demographic impact.

In its later submission,¹⁸⁴ HC concurs with the need for programs and activities to mitigate the SIA of the Project and recommends that all mitigative measures pertaining to community health be implemented as soon as possible. HC also recommends that these measures (such as courses to be offered) be undertaken for longer than the life of the mine, as SIA extend beyond the life of the mine.

INAC brought forth several recommendations in its later submission.¹⁸⁵ INAC acknowledges Tahera's efforts to bring Elders to the Jericho site and learn from their knowledge during these visits, as well as consider relevant traditional knowledge research. NIRB's direction on TK asks Tahera to go beyond this; to demonstrate how TK was used in all phases of the assessment from data collection to mitigation and monitoring programs. In INAC's opinion, Tahera has not fulfilled the intent of the guidelines in the SIA and the cumulative impacts assessment.¹⁸⁶ While INAC believes Tahera should provide a fuller commitment to continued work in this regard, INAC does not believe this deficiency has seriously effected the conclusions the Proponent reached concerning the impacts of the project. A Community Liaison Committee/Socio-economic Monitoring Committee, proposed by Tahera, for socio-economic monitoring/ongoing community consultation may be of use to integrate TK during project operations and reclamation

Tahera has, to its credit, made several efforts to inform Kitikmeot communities of the Jericho project. The intent of NIRB's guideline on public consultation suggests a fuller effort is required to ensure that the assessment focused on appropriate VECs and VSECs, that appropriate significance criteria are chosen, and that the public contributes to designing and implementing mitigation and monitoring measures.¹⁸⁷ The CLC/SEMC proposed by Tahera may be an appropriate tool for this.

INAC critiques the methodology used to assess the socio-economic impacts of the VSECs.¹⁸⁸ The manner in which materials were presented in the FEIS for all the VSECs, except crime, has improved in the Supplemental Report. Yet certain

¹⁸⁴ Health Canada submission, November 10, 2003.

¹⁸⁵ Indian and Northern Affairs Canada (INAC) Submission, November 10, 2003.

¹⁸⁶ INAC Submission, November 10, 2003. Section 1, Recommendation # 1, pg. 5.

¹⁸⁷ INAC Submission, November 10, 2003. Section 1, Recommendation # 2, pg. 5.

¹⁸⁸ INAC Submission, November 10, 2003. Section 4, Recommendation # 39, pg. 65.

deficiencies remain, in particular the absence of methodologies, details on the Proponent's assumptions, and information related to the quantitative analysis of the potential impacts.

In summary, INAC does not have confidence in the SIA conclusions and recommends the need for a Socio-Economic Management Strategy ("SEMS") that will be implemented by the Mine. The strategy should be developed under the direction of a multi-stakeholder committee or advisory group to ensure that those who are potentially affected by the Project have an opportunity to voice their concerns with regard to impacts, mitigation and monitoring. INAC also suggests that Tahera co-ordinate socio-economic impact management activities with those of other development projects.¹⁸⁹

The Hamlet of Gjoa Haven, in its later submission,¹⁹⁰ details the number of person days worked in the Jericho Project site (exploration camp). The Hamlet states that no mine exploration training initiatives have been offered in Gjoa Haven, yet several of the residents have worked whenever possible for Tahera at the Jericho site and elsewhere. Gjoa Haven has not benefited from existing training initiatives and services offered in other Kitikmeot communities through the Jericho or Doris North projects. Training programs and initiatives and jobs would encourage students to complete high school. The Hamlet would like the IIBA to include Gjoa Haven with respect to recruitment and training initiatives. Residents are interested in the Project and any available opportunities. With the support of KIA and Tahera, the community could benefit from the Project and Tahera would benefit by gaining reliable employees from this community.

The Hamlet of Cambridge Bay brought forth the following recommendations in its submission:¹⁹¹ 1) development and Implementation of a *Socio-Economic Agreement*; 2) consideration of placing a *Liaison/Employment Officer* in Cambridge Bay; 3) more information on a *secondary diamond market*: a) availability of rough diamonds to Kitikmeot communities, b) plans to develop or support a jewellery manufacturing company in Cambridge Bay and c) location of Canadian Diamond Evaluation contract; 4) more information on *education*: a) plans to provide education benefits to Cambridge Bay youth, b) steps for tours, classroom presentations, youth geology training, and coop

¹⁸⁹ INAC Submission, November 10, 2003. Section 5, Recommendation # 40, pg. 65.

¹⁹⁰ Hamlet of Gjoa Haven submission, November 10, 2003.

¹⁹¹ Hamlet of Cambridge Bay submission, January 7, 2004.

work programs for post-secondary students and 3) exposing youth to future employment opportunities in all sectors of the mining industry; and 5) more information on *Community Wellness*: a) plans to support existing programs or to implement new ones and b) concern for families separated for periods of time while family members work in the mine.

The Hamlet of Kugluktuk brought forth the following recommendations in its submission:¹⁹² 1) type of federal government funding available, i.e. INAC needs to target the right types of funding and programs in the Kitikmeot; 2) Iqaluit's mineral and mining policy development does not meet Kugluktuk's needs; 3) uncertainty about GN's strategy on the secondary diamond industry and whether IIBAs will include requirements to leave rough diamonds in Nunavut; 4) concerns about long-term community development and how money made from mining will benefit people in the future; 5) lack of territorial infrastructure to facilitate development and local governments lack of local infrastructure or human capacity to manage or facilitate growth; 6) inability to deal with short-term economic boom (community growth); 7) negative social and cultural effects from resource exploitation; 8) Inuit governance issues (i.e. lack of participation in IIBA); 9) use of appropriate examples of mining experience (i.e. mining operations in the Northwest Territories and Alaska) and 10) incorporation of EIA education and training.

3.13 Inuit Impact Benefits Agreement

At the Final Hearings, much attention was paid to the Inuit Impact Benefit Agreement. IIBAs are detailed in Article 26 of the Nunavut Lands Claim Agreement, which states that an IIBA is required when a major development project is undertaken, wholly or partially, on Inuit Owned Lands ("IOL"). KIA owns a portion of the surface lands required for the Jericho project and the Project is considered a major development. Kitikmeot Communities included in the Jericho Project IIBA are Bathurst Inlet, Umingmaktok, Cambridge Bay, Kugluktuk, Gjoa Haven, Kugaaruk and Taloyoak. A draft copy of the IIBA was provided to NIRB, with the exclusions of Schedules J – K (Inuit Benefits, Water Compensation Agreement and Provision of Rough Diamonds)¹⁹³.

¹⁹² Kugluktuk 'Interim Community Submission', June 24, 2003. Section 2: Jericho Diamond Mine Community Concerns.

¹⁹³ *Inuit Impact Benefits Agreement – DRAFT*. Tahera Jericho Project IIBA. Kitikmeot Inuit Association (KIA).

The *purpose* of the Jericho Project IIBA is to: a) set out terms and conditions for KIA support and provisions for Inuit involvement; b) ensure that training, employment and business opportunities are made available to Inuit; c) ensure that the Project contributes to community development and well-being in the Kitikmeot Region; d) contribute to the maintenance of Inuit heritage, land-based activities and harvesting; e) establish an ongoing working relationship between Parties on matters covered by the IIBA; f) provide a mechanism through which effective communication and cooperation can take place; and g) achieve any other goals consistent with section 26.3.3 of the NLCA.

The IIBA will be effective for ten years and will be automatically renewed for successive terms of three years thereafter until termination. If Tahera decides to mine the kimberlite resource associated with the proven reserves of the Jericho Kimberlite or if Tahera decides to mine other kimberlites, the Company shall give notice to KIA and the Parties agree that they will review and if appropriate amend the Agreement.

Within thirty days of a Jericho Project Construction decision, an *Implementation Committee* will be established.¹⁹⁴ The Committee will be comprised of two KIA representatives, one of whom may be its IIBA liaison officer. Tahera will also appoint two representatives. The Committee will have several duties, some of them including: overseeing and managing the implementation of the IIBA, developing and achieving targets for Inuit employment and business development, and monitoring and evaluating on an annual basis the implementation of the obligations set out in the Agreement.

Tahera will appoint a *Liaison Officer* (“Liaison”) to assist in the implementation of the provisions of the IIBA.¹⁹⁵ The Liaison may represent and act for Tahera on the Implementation Committee and will be the contact at the working level between Tahera and the KIA in implementing the IIBA. The Liaison will assist Tahera in ensuring that the provisions of the IIBA are observed and will assist in resolving any disputes that may arise.

KIA will hire and/or appoint an *IIBA Coordinator* (“Coordinator”), who may represent and act for the KIA on the Implementation Committee and will work with Tahera on the

¹⁹⁴ *IIBA – DRAFT*. Tahera Jericho Project IIBA. KIA. Schedule A (Implementation Committee).

¹⁹⁵ *IIBA – DRAFT*. Tahera Jericho Project IIBA. KIA. Schedule B (Liaison Officer).

implementation of the IIBA¹⁹⁶. The Coordinator will assist the KIA to ensure that provisions of the IIBA are observed and will assist in resolving any disputes that may arise.

Training will be required to enable Inuit to take advantage of employment and business opportunities in the Jericho Project.¹⁹⁷ Within six months of the effective date of the IIBA, Tahera will undertake an analysis of all jobs required for the Project. The Proponent will provide a listing of required qualifications and skills and indicate job performance measures. Tahera will work with appropriate government(s) and KIA to identify the number of Inuit potentially available to fill the positions. Tahera, with the assistance/guidance of the Implementation Committee and KIA, will also prepare and maintain a Labour Force Development Plan.

Tahera specifically commits to developing and providing the following opportunities: a) four apprenticeship positions, and b) one management/supervisory trainee position. Tahera will also establish training programs for orientation, job safety, skills training, career path planning, supervisory or management training and selected external training programs leading to skilled or supervisory positions. The KIA, along with public education, training institutions and Tahera, will sponsor pre-employment training to increase qualifications among Inuit. Within two years of the end of the 10-year term of the IIBA, Tahera will provide job placement counselling for Inuit employed at the Jericho Project with over 2 years of service.

Tahera will undertake community information programs once a year in Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak and Kugaaruk and will provide community members with information on the: a) labour needs of the Project, b) skills and qualifications required for employment, c) training opportunities available to prepare for mine employment and d) educational support programs for development of qualifications in the mining industry.

Tahera and KIA will work with government institutions and Inuit organizations in the development and implementation of off-site educational programming related to the mining sector for Kitikmeot High Schools. Tahera will provide, along with government

¹⁹⁶ IIBA – DRAFT. Tahera Jericho Project IIBA. KIA. Schedule C (IIBA Coordinator).

¹⁹⁷ IIBA – DRAFT. Tahera Jericho Project IIBA. KIA. Schedule D (Training and Education Opportunities).

departments, agencies and educational institutions, educational upgrading programs and opportunities for Inuit wishing to upgrade their basic educational levels. Tahera will also establish a scholarship program for Inuit post-secondary students in the mining fields beginning in the year that a Construction decision is made. The total value of the scholarships is to be \$10,000 per year.

Tahera will consult with the KIA in developing recruitment and hiring policies and procedures to maximize Inuit *employment* at the Jericho Project.¹⁹⁸ All positions will be open to Inuit with the ability, work, skills, experience, necessary qualifications and any combination of factors required by the positions. Tahera will attempt to achieve an Inuit employment goal of 60% by Year 5, with the level of Inuit employment being measured once every calendar year. Tahera will ensure that its internal posting system for hiring personal will include postings at the Project site and in Kitikmeot communities.

A two-week in two-week out rotation during production and a four-week in, two-week out rotation during exploration, construction and development will afford sufficient time away from the work site for Inuit employees to pursue traditional lifestyles.

Points of hire for the Project will be from Kugluktuk, Cambridge Bay, Gjoa Haven, Taloyoak, Kugaaruk and Yellowknife, from and to which Tahera will provide transportation for Inuit employees. Tahera will maintain personnel and employment data in a format that enables monitoring of Inuit levels of employment. The KIA will also maintain and update a Kitikmeot Inuit Labour Market Information System.

Tahera will identify jobs for which formal entry-level educational requirements will be adjusted for Inuit applicants. The Proponent will require Inuit to have a minimum Grade 10 education for entry-level positions. Tahera will also develop career path planning and counselling programs to meet specific needs of Inuit employees. Tahera will make summer employment available to students from the Kitikmeot Region.

Inuit, who do not speak English, will be given opportunities to qualify for jobs where lack of it does not compromise safety. Where necessary, all notices and policies will be

¹⁹⁸ IIBA – DRAFT. Tahera Jericho Project IIBA. KIA. Schedule E (Employment Opportunities).

written in Inuinnaqtun and Inuktitut. Tahera will engage bilingual Inuit who are able to translate to unilingual Inuit.

Tahera will implement the following support measures to maximize Inuit employment: a) drug and alcohol rehabilitation programs, money management workshops and other individual support matters; b) inter-cultural dialogue and understanding of the Project; c) an *Employee and Family Assistance Program (EFAP)* that will provide Inuit employees free professional counselling; d) provision of country food; e) prohibition of the possession, consumption or use of alcohol and illegal drugs; and f) provision of on-site communication services. Tahera will also prohibit the possession of firearms in its camp.

The development of the Jericho Project can provide opportunities for expanding and/or enhancing the *business community* and employment of Inuit can add value to the Kitikmeot Regional economy.¹⁹⁹ As a result, the KIA will maintain and update, on a quarterly basis, an official Registry of Inuit Businesses. Tahera will classify contracts as Class A, for contracts expected to exceed \$500,000, Class B for contracts expected to cost between \$100,000 and \$499,999 and Class C for contracts expected to cost under \$100,000.

Tahera will notify the KIA IIBA Coordinator and publish notice of all Class A and B contracting opportunities for Inuit businesses. If no Inuit businesses have contacted Tahera by the end of the specified notice period, Tahera can contract with any business. For Class C contracts, Tahera may identify and negotiate directly with Inuit businesses or give notice and seek to negotiate with competent firms.

KIA acknowledges that Tahera will make arrangements for the valuation, sale and secondary processing of the Jericho Project rough diamond production. Tahera will consider the provision of rough diamonds to a company designated by the KIA in accordance with Schedule "L" of the IIBA. KIA acknowledges that Tahera has begun and intends to complete negotiations with Dowding Reynard and Associates ("DRA") of South Africa, for the engineering, procurement, construction and management of the diamond processing plant to be used at the Jericho mine.

¹⁹⁹ IIBA – DRAFT. Tahera Jericho Project IIBA. KIA. Schedule F (Business and Contracting Opportunities).

Tahera will provide KIA access to those parts of the Jericho Project and its facilities that are on Inuit owned surface lands upon reasonable notice.²⁰⁰ Public access to KIA lands will be restricted in a manner consistent with the NLCA and its authorities as surface landowner. Tahera will cooperate with the KIA and Kitikmeot communities in any efforts for search and rescue of missing persons, reasonable requests for gasoline by Inuit harvesters, and requests for emergency shelter and food in the vicinity of the Project.

Tahera will provide opportunities for Inuit participation in any mining research and development.²⁰¹ Where this collaboration achieves mining technologies and practices with commercial value, KIA will share in that value.

Tahera will carry out abandonment and reclamation efforts for the Jericho Project throughout its life, consistent with the terms and conditions of any land use permits, water license or surface leases granted.²⁰² The KIA will issue Land Use authorizations and land tenures for the portions of the Project on IOLs, which will contain provisions for reclamation.

Finally and quite significantly, the IIBA does not cover every person in the Kitikmeot.²⁰³ In the community of Gjoa Haven, this important exchange took place between the KIA and the GN:

MR. EVALIK: "Just got one question. In light of the agreement that we will be doing community visits along with government of Nunavut, along with Tahera and invitation to INAC some time in early spring, would that suffice as a community consultations that what will be contained in the socioeconomic agreement and the role -- roles and responsibilities will be communicated to the communities, would that suffice to GN instead of setting up another community advisories board?"²⁰⁴

MR. MacISAAC: "Our biggest concern with the socioeconomic aspects of this project is that they are all addressed. And we understand that -- and we have not had an opportunity to fully investigate what is in the IIBA. Our concern is that we want to

²⁰⁰ *IIBA – DRAFT*. Tahera Jericho Project IIBA. KIA. Schedule G (Access to Facilities and Roads).

²⁰¹ *IIBA – DRAFT*. Tahera Jericho Project IIBA. KIA. Schedule H (Research and Development).

²⁰² *IIBA – DRAFT*. Tahera Jericho Project IIBA. KIA. Schedule I (Abandonment and Reclamation).

²⁰³ KIA question to INAC at January 9, 2004 Hearings in Gjoa Haven: Does INAC believe that the IIBA covers socioeconomic benefits for 85 to 90 percent of Inuit in Kitikmeot that it represents? See pg. 1071 of the transcript.

²⁰⁴ KIA questioning the GN regarding the proposed committee at January 9, 2004 Hearings at Gjoa Haven. See pp. 1025-1026 of the transcript.

make sure that all of them are addressed, and we are especially concerned with the impacts on communities. And so having said that, if some kind of agreement can be reached between the various parties such that there is an ongoing monitoring and dealing with the effects that include the communities to a major degree, then we would be in support of that. But first and foremost, we want to see healthy communities come out of this process. So we have agreed to accompany the KIA on this community visit, but our -- but our focus is going to make sure that establishing a mechanism that the communities have a real voice in this."²⁰⁵

MR. EVALIK: "During your community visits, would it be adequate if our roles and responsibilities from KIA and government of Nunavut, Tahera and INAC by invitation a little bit later, would that be adequate in terms of explaining to the communities as to our roles and responsibilities to carry out socioeconomic opportunities for the Kitikmeot?"²⁰⁶

MR. MacISAAC: I really can't answer that question at this time until I have -- until we have had a chance to examine the IIBA. However, I think it would be a good goal.²⁰⁷

NIRB agrees and believes a Socio-Economic Monitoring Committee should be created to add to the important work of KIA, which would not repeat the work of the IIBA, but would reflect the views of every citizen in the region. This position was echoed by the GN and INAC and the Board believes it is important. INAC's presentation in Cambridge Bay agreed. In answer to Mr. Missal's question "...who would you envisage would take the lead role in something like this?" INAC responded:

"We would see that it is the responsibility of the company to ensure that the advisory committee is there to help them look at the impacts that your project is having on the community, so we would certainly see Tahera as having the need for this."²⁰⁸

"Essentially we would see it unique to this project, but it is ensuring that the organizations from the communities who would be impacted are participating, whether it is GN health and social services, perhaps RCMP, community leaders, things like that. Not necessarily other industry, but it should be very specific to your project and to your needs as your project is impacted upon those communities."²⁰⁹

On the same point, GN made this presentation in Gjoa Haven:

²⁰⁵ GN responding to KIA's questions regarding the proposed committee at January 9, 2004 Hearings at Gjoa Haven. See p. 1026 of the transcript.

²⁰⁶ KIA questioning the GN regarding the proposed committee at January 9, 2004 Hearings at Gjoa Haven. See pp. 1027 of the transcript.

²⁰⁷ GN responding to KIA's questions regarding the proposed committee at January 9, 2004 Hearings at Gjoa Haven. See p. 1027 of the transcript.

²⁰⁸ Comments made by INAC in answer to the proponent's questions at the Cambridge Bay Hearings on January 7, 2004, pp. 577-578.

²⁰⁹ Comments made by INAC in answer to the proponent's questions at the Cambridge Bay hearing on January, 2004, p. 577.

“Our next major area of concern is socioeconomic concerns. We would like to see Tahera create a detailed socioeconomic monitoring and mitigation plan for the Jericho Diamond Project. We would like to see support for the establishment of a communities advisories board to ensure that communities have a real and meaningful voice in dealing with the socioeconomic impacts of this project. We would like to see that board mandated to assess the impact of a broad range of valued socioeconomic components including harvesting, community governance, and social and physical infrastructure which are in addition to the valued socioeconomic components identified by the company.”²¹⁰

Finally, NIRB Staff had the following questions for Tahera in Gjoa Haven:

NIRB Staff: “What the Board has heard in the last few days is that both the government of Nunavut and DIAND have come to the Board, and with their jurisdictions and with their interest, they have requested that a socioeconomic committee of some sort be established obviously to work with Tahera, to work with the people, perhaps to work through the Board with all of you. So my question to Tahera, and likely through Mr. Hornal who has a lot of experience in the north, would be this: We all know that, of course, an IIBA has been signed in principle and it will be brought to these communities, with that in place, what advice does Tahera have to the Board regarding how to respond to the requests of GN and DIAND for these committees?”

Mr. Missal: “I guess from Tahera Corporation's perspective, we believe that the IIBA fulfills many, if not all, of those requirements.”²¹¹

The Board agrees that the IIBA fulfills many, but not *all* of those requirements.

3.14 Conclusion

The Nunavut Impact Review Board is recommending to the Minister that the Tahera Jericho Diamond Project proposal be approved, subject to the Project Specific Terms and Conditions that follow. The basis for recommending approval is that the Board believes, as do most parties, that the project will infuse a much needed economic boost to the area, and that the mitigation measures if adopted, will serve to protect the unique West Kitikmeot environment

Since most of the Inuit in the Kitikmeot hunt and fish, NIRB remains concerned with the impacts on wildlife and aquatic impacts. The Board requires Tahera to live up to its promises to do everything it can to protect the environment including where necessary to submit improved plans to design, operate, or mitigate the significant impacts associated

²¹⁰ GN's presentation at January 9, 2004 Hearings at Gjoa Haven. See pp. 1023-1024 of the transcript.

²¹¹ Tahera responding to the Board's questions regarding the proposed multi-stakeholder advisory committee. See pp. 986-987 of the transcript of January 9, 2004 Hearings at Gjoa Haven.

with this project.

4. General Recommendations

Tahera's Project proposal can now be sent to the regulatory stage, where further detail will be provided to Tahera based upon the assurances made during the Hearings and, more specifically, the needs of licensing authorities.

NIRB believes that Tahera can mitigate the potential environmental effects of their diamond mine, if Tahera constructs and operates the mines according to their commitments made at the Hearings, which NIRB expects Tahera to do. NIRB has stressed the need to protect the wildlife and physical environment because the Inuit that made submissions on these points did so out of a cultural and spiritual right as well as legal interest in these resources. NIRB also stresses the need to protect this precious wildlife resource for future generations and does not feel that the limited data offered by Tahera is sufficiently confident to protect regional movements of not only the Bathurst herd but of the other herds that might encroach into this mining region.

The following are general recommendations for the Jericho Project:

1. Due to the concerns expressed by the KIA and based upon increased mining in the Kitikmeot Region particularly, NIRB finds it desirable that INAC assign a full time Inspector to live and work out of the Kitikmeot Region. The same request applies to the GN: that GN assign an extra government person to work for its Department of Sustainable Development, to live in the Kitikmeot, and to provide regional support for the health and social impacts of mining development.
2. The Board shares concerns of some parties that information was filed too late in the process (a concern of the DFO) or not at all (some traditional knowledge information). NIRB therefore suggests that industry, proponents and governments share and release information at the earliest stages of project design and share resource and other data to avoid eventual lack of data or conflicts in data or design. NIRB further recommends that in the future all consultants who filed submissions or comments must be available at the Public Hearings to defend and explain those submissions.

3. That proponents in the future prepare Environmental Impact Statements that are not only easier to read and follow, but easier to use in the Hearings. This means that the Final EIS should highlight the preferred alternative, respond to comments from the Draft EIS, summarize mitigation measures, and include as appendices any reports or further studies that arose out of the Draft EIS stage. At the Draft EIS stage, further attention should be paid to the project's Purpose and Need, Alternatives, a description of the Affected Environment (biophysical and socio-economic); the Environmental Consequences or Anticipated Impacts that are significant in *each* of the Affected Environment category, and for *each* alternative; and finally, the Board believes a better discussion of cumulative impacts is needed. These issues are found within the Part 5 EIS requirements of NIRB.
4. The Board is quite pleased that Tahera and KIA have entered into a preliminary IIBA and recommends that the provisions of the NLCA relative to the procedure of the Agreement's final signing and implementation is fulfilled and in particular the Board points out the procedures found in NLCA Article 26.3.2.
5. NIRB strongly encourages INAC to be *broad* and *creative* with the way it applies the *Territorial Lands Act* and *Regulations* to the project specific Terms and Conditions.
6. The Board heard requests from several parties that the spin-off aspects of the diamond industry, such as secondary sorting, polishing, and marketing and other opportunities for northern businesses including retailing, take place as much as possible, in Nunavut.
7. There are several authorizations that are required in addition to the Project Certificate.²¹² Tahera should meet with all authorities as soon as possible and ideally jointly, to clarify this Report's information needs and specific application requirements.
8. NIRB encourages Tahera to contact the Nunavut Wildlife Management Board

²¹² Exhibit # 38. Tahera List of Licenses, Permits and Authorizations Required for the Jericho Diamond Project.

(“NWMB”) for whatever advice it may have and that the NWMB participate in future project reviews.

5. Project Specific Terms and Conditions

Introduction

The Board believes Tahera’s Jericho Project should be approved, and proceed *subject* to the following 53 Terms and Conditions. In setting out these Terms and Conditions, the Board wishes to stress that where monitoring is mentioned, this includes baseline monitoring where needed (for any variations over current data that can be studied before the project commences); effects monitoring (measure the effects of project construction and implementation); and compliance monitoring (checking performance against the Project Certificate). The issues of monitoring frequency, procedure, analysis and review of results, and compliance requirements, are subject to direction from the NIRB Monitoring Agent in consultation with other regulatory authorities.

NIRB’s Monitoring Agent identified in the Terms and Conditions below will cooperate and coordinate as much as possible with regulatory authorities to avoid duplication of existing monitoring obligations.

Monitoring

1. Based upon the authority of Article 12.7.1, NIRB will appoint a full time Monitoring Agent for the Tahera project, whose mandate is to monitor the Project as it proceeds and to analyze the success of these Terms and Conditions as the project becomes operational, and beyond, to Abandonment and Restoration. Information gathered by NIRB’s Monitoring Agent is public information that will be shared with the proponent and regulatory authorities.
2. The responsibility of the NIRB Monitoring Agent is to give direction to the Proponent on its obligation to compile an annual report for the duration of the mine on major environmental impacts, especially wildlife, fish, and aquatic ecosystems. The Monitoring Agent’s further assignments, and subject to direction from NIRB, include proposing, coordinating and suggesting studies, assessing the study results,

undertaking action to follow-up, deciding on site visits, changes to the monitoring program, and recommending to NIRB any changes to the Terms and Conditions as appropriate under section 12.8.2 of the NLCA.

3. Tahera should work with regulatory authorities to monitor caribou in and around the project area. This caribou monitoring should not duplicate the work underway by other groups and authorities, for example for the Slave Geological Province, but instead will focus on the caribou migrating to the northern portion of the Slave Geological Province.
4. Tahera shall initiate a long term monitoring program regarding the health of fisheries in the Carat Lake systems as far down as the Jericho River, not only to protect this fishery, but also to enhance it.
5. The installation of an atmospheric monitoring station to be funded and installed by Tahera, to obtain site-specific meteorological data. This station shall meet the requirements of Environment Canada air quality experts and focus if possible on dust from roads and blasting, and windblown dust from stockpiles.
6. Tahera shall implement a site-specific ecosystem based water monitoring program, which it will fund. Tahera will also meet the requirements of regulators including the Nunavut Water Board and take advice from KIA as to site selection of this ecosystem based water quality monitoring program.
7. Tahera shall re-evaluate data and options for the currently planned diversion, dams, and other hydrologic changes and reconsider mitigation options. This analysis could be made a condition of any federal approvals required by regulatory authorities.

Noise

8. For noise abatement, Tahera shall employ industry best practices to protect people and wildlife from mine activity noise, including vehicles and aircraft. The final noise abatement plan shall be filed with NIRB's Monitoring Agent. Industry requirements for low-level flying should be maintained.

Wildlife

9. Environmental effects of blasting on wildlife shall be kept to a minimum. Blasting cannot occur if it affects in any way migrating caribou and birds or local carnivores.
10. Tahera shall develop a plan with the GN to enhance wildlife data and to provide more details on caribou found in the Project area. This work shall begin in 2004 with Tahera taking a lead role.
11. In approving this Project, NIRB encourages all regulatory authorities (i.e. federal, territorial and KIA) to study the cumulative effects of any associated projects (e.g. Bathurst Inlet Port and Road) on regional caribou movements.
12. Tahera shall plan, construct, and operate their mine in such a way that caribou migration paths through the project area are protected. Maps of corridors shall be placed in site offices and upgraded as new information on corridors becomes available. This information shall be sent to NIRB's Monitoring Agent, GN and KIA.
13. Tahera shall submit plans to regulatory authorities to include measures that will ensure caribou are not harmed, entrapped, or frightened by any project activity. Tahera shall do everything it can to ensure that caribou do not fall into pits, or slip on roads; this includes the requirement that Tahera use whatever means it finds necessary including ramps and crossings to assist in the free movement of caribou and construction of berms or fences where appropriate to prevent accidents involving wildlife.
14. Tahera shall take special care to avoid disturbing nesting sites of any species in the Project area. Sites within 500 meters of the Project area should be also located, marked, and reported by Tahera to NIRB's Monitoring Agent.
15. For the greater protection of wildlife, wildlife must have the right of way, and this principle must be strictly enforced. This means all activity including construction,

drilling, blasting, and traffic movements, be stopped in the presence of susceptible raptors, ungulates, and carnivores.

16. The highest protection shall be given to nesting and flightless birds or vulnerable wildlife including protection of all dens. Further, Tahera must submit a more detailed plan to NIRB's Monitoring Agent to list specific steps that Tahera will take to study and prevent losses of nests and eggs within the site and a buffer zone 500 metres surrounding the site.
17. For safety and other reasons, there shall be no hunting of wildlife in the Project area and 500 metres outside the project area.
18. Problem wildlife shall be reported immediately to the GN and to the NIRB Monitoring Agent.

Fish and Aquatics

19. Tahera shall collect pre-construction data for water and sediments, aquatic biota (zooplankton, phytoplankton, and benthic invertebrates) to be submitted to regulatory authorities. The period for ongoing data collection shall be the subject of consultation with regulatory authorities.
20. Tahera shall ensure mitigation and compensatory measures meet the needs of regulatory authorities for fisheries or habitat losses, included but not limited to, the area of water intakes and outtakes, Long Lake, and Streams C1 and C3. These programs should be adjusted based on long-term monitoring of fish in the Carat Lake systems, and further site specific studies be undertaken and submitted to the regulatory authorities prior to the final alignment for water crossings or diversions, with the proper development of mitigation measures more specifically detailed.
21. That Tahera meet the requirements of DFO as it relates to no net loss, further evaluation, and management of the Carat Lake and surrounding fishery. These requirements should be in place before the water license is issued. The Carat Lake causeway must be constructed to minimize disturbance and maximize development of fish habitat including benthic substrate.

22. That Tahera conduct a literature review, in consultation with DFO and NIRB's Monitoring Agent, of the effects of ice road travel, noise and vibration and to fish populations. The results of this review are to be reported to NIRB's Monitoring Agent. If there are potential problems identified in the review, NIRB's Monitoring Agent will notify Tahera and the Board of options including a biological study.
23. Tahera's blasting program must meet the needs of regulatory authorities regarding the protection of fisheries.
24. Tahera shall take the greatest caution to prevent any impact on fish and mammal populations, fish eggs, spawning beds, silt loading, offspring, and any wintering areas including carnivore dens and bird nest sites.

Environmental Management

25. Tahera shall do a cost benefit analysis associated with the various options of water management at the Jericho site, including recycling. This information shall be provided to regulatory authorities.
26. Site-specific plans for blasting activities must meet federal government standards and blasting crews must be fully trained including being provided a copy of Tahera's final Project Certificate containing whatever terms and conditions are ultimately approved by the Minister.
27. All blasting constituents (dynamite, ammonium nitrate, fertilizer, fuel, or other components), and any accelerants, shall be stored in covered and isolated buildings, well marked as being dangerous. Blasting materials buildings shall be protected according to industry standards. Ammonium nitrate that is spilled must be cleaned up immediately.
28. A blast management plan for Tahera's operations shall be submitted to the NIRB Monitoring Agent, regarding timing, location, and approximate amounts of blasting agents used on an annual basis or if plans change.

29. Tahera must provide greater detail to regulatory authorities on effluent options, including better information on ammonia and phosphorous levels.
30. Tahera must provide greater detail to regulatory authorities on total dissolved solids ("TDS") constituents and nutrient concentrations expected to be released to downstream waters.
31. Further detailed study by Tahera to ensure that water quality exiting the PKCA meets receiving water standards, including further study on the option of a divider/barrier or dyke in the PKCA to improve water quality. This information is to be provided to NIRB's Monitoring Agent, DFO, NWB and EC.
32. Any ice or snow road construction, stream or river crossing, be conducted to minimize sedimentation and environmental disruptions, and that DFO, KIA, and the NWB be consulted well in advance of such construction. At a minimum, silt fences must be used where appropriate and all fuel truck drivers must carry spill kits.
33. That all movement of goods including hazardous materials across the winter or other roads be subject to a comprehensive materials handling, management, and environmental protection plan. This comprehensive plan shall be in place prior to the initial haul supply of the mine, and shall contain environmental terms at least as stringent as those currently incorporated into the Tibbett-Contwoyto Winter Road agreement, and shall be filed with NIRB's Monitoring Agent and other regulatory authorities as required.
34. All fuel storage areas shall be bermed and meet regulatory requirements.
35. Waste management must be controlled in such a way that reduces or eliminates the attraction to carnivores or raptors. Fencing and other suitable deterrents shall be employed in all landfills and waste storage areas. A final waste management plan shall be filed with regulatory authorities including the NWB and NIRB's Monitoring Agent.

36. Tahera shall immediately contact the NWB to provide greater detail on the PKCA, West Dam, spillway, settling pond, dumps, waste disposal, stockpiles, and quantities of fresh water needed at the mine site, reclamation plans and any other information needed to assist the NWB in its water license application.
37. Tahera shall work with regulatory authorities to combine where appropriate the Hazardous Materials Management Plan, Spill Prevention and Counter-measures Plan and Emergency Response Plan.
38. That Spray Irrigation, if it is incorporated as a project component in the future, is referred back to NIRB with further design detail to be dealt with under NLCA Article 12.4.3.
39. That the outflow Diffuser, if it is incorporated as a project component in the future, be referred back to NIRB with further design detail to be dealt with under NLCA Article 12.4.3.

Abandonment and Reclamation

40. Tahera shall enter into written arrangements with its contractors to ensure all site debris is cleaned up off the lands including wind-blown debris.
41. For abandonment and restoration, Tahera must comply with INAC's policy of full cost restoration and any related NWB requirements such that the Inuit and taxpayers are not liable for any cost associated with cleanup, modification, decommissioning, or abandonment. An updated report on progressive reclamation and the amount of security posted, as required by KIA, INAC or the NWB, shall be filed with NIRB's Monitoring Agent annually.

Socio-Economics

42. Detailed safety requirements shall be met according to all workplace and safety regulatory requirements, including CO monitoring patches worn by all underground workers.

43. Labour recruitment should take place as much as possible in the Kitikmeot communities and also elsewhere in Nunavut. Women should be included as much as possible in the work force. On-the-job training should also be a large part of Tahera's training program.
44. Prior to the commencement of operations, a Kitikmeot Socio-Economic Monitoring Committee be formed to supplement, not replace the IIBA. This committee includes GN, INAC, KIA and NIRB's Monitoring Agent and will involve the preparation of an annual report of the impact of the mine on the closest communities, including Inuit who live near the project area.
45. Tahera shall prepare an orientation program for any non-Inuit workers, to train them to be sensitive to the Inuit culture. KIA shall be consulted on the development of this program.
46. Tahera should make best efforts to find management positions for this mine from Nunavut.
47. Tahera's training shall include safety and emergency programs for all personnel.
48. Tahera shall take steps to ensure that all on-site personnel are drug and alcohol free.
49. That Tahera work with governmental social and health agencies to determine whether current governmental programs are adequate and can respond to Tahera's future mine in the West Kitikmeot. Attention should be given to the impacts of Tahera's Jericho mine in Nunavut and any government studies in this field should be posted in local government offices.

Other

50. Tahera must work proactively with the KIA to meet any requirements of Article 20 of the NLCA.

51. That any archaeological find that is discovered be immediately and concurrently reported to government agencies, KIA, and NIRB's Monitoring Agent. This includes grave sites, which if discovered shall be fully protected.
52. Tahera shall meet with respective licensing authorities as soon as possible before construction begins to discuss the posting of adequate performance bonding. Licensing authorities are encouraged to take every measure to require that sufficient security is posted before construction begins. This bonding should not duplicate other amounts of security required (e.g. NWB), but this condition is intended to ensure that firstly, full and complete performance bonding for all aspects of the construction, operation, abandonment/reclamation of Tahera's mine is a priority for any license or approval that is issued to allow this Project to proceed, and secondly, to fully protect the Inuit and other tax-payers if Tahera for whatever reason fails to perform or fulfill their commitments as promised.
53. Any additional mitigation measure proposed by Tahera that is not in conflict with, or covered by these terms and conditions, shall be fully implemented in accordance with regulatory licensing.
54. Regulatory authorities shall be entitled to impose additional or stricter licensing requirements if they are necessary or required.

6. Appendices

Appendix 1 – List of those who attended the Final Hearings

NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

CAMBRIDGE BAY, NUNAVUT

9:00 a.m. – 5:00 p.m.

JANUARY 5, 2004

NAME	ORGANIZATION
PLEASE PRINT	
George Hekongak	NTI LANDS
Stefan Lopetka	NTI LANDS
Erik Denholm	INAC - Gortner Lee
Holger Hartmann	INAC - BGC Eng. Inc.
Shirley Stendera-Pfeiffer	DE BEERS CANADA Exploration
NORTH CALANAST	JUSTICE CANADA
Stephanie Critch	DFO
Stephen Traylor	DIAMOND
Paul Patterson	DIAMOND
Patrick Duxbury	Nunavut Water Board
Carl McLean	DIAMOND
BEN HUBERT	Hubert Poirer & Tahara
Robert Horne	Robert Horne Associates
BRUCE OTT	AMEC
Paul O'Shaughnessy	Gortner Lee / INAC
Hugh Wilson	Miramax Home Co.
John Donahue	Council - KIA
John Mackenzie, Billis	DIAMOND
Court Smith	Nuna Logistics
Andre Sedelinski	Microbial Technologies
LARRY DYKE	NRC Can
Jeffrey Hingrayok	KHS
George Wilson	KHS
Wendy McAllister	
Kevin Kauruk	KHS
Gregory Kauruk	KHS
John Kauruk	KHS
Matthew Kauruk	CBC

SIGNATURE
George Hekongak
Stefan Lopetka
Erik Denholm
Holger Hartmann
Shirley Stendera-Pfeiffer
Stephanie Critch
Stephen Traylor
Paul Patterson
Patrick Duxbury
Carl McLean
BEN HUBERT
Robert Horne
BRUCE OTT
Paul O'Shaughnessy
Hugh Wilson
John Donahue
John Mackenzie - Billis
Court Smith
Andre Sedelinski
LARRY DYKE
Jeffrey Hingrayok
George Wilson
Wendy McAllister
Kevin Kauruk
Gregory Kauruk
John Kauruk
Matthew Kauruk

NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

CAMBRIDGE BAY, NUNAVUT

9:00 a.m. – 4:00 p.m.

JANUARY 6, 2004

NAME PLEASE PRINT	ORGANIZATION	SIGNATURE
Robert A. Smith	NIRB	
Robert A. Smith - Gillis	DIAMOND	Robert A. Smith - Gillis
CHARLIE EVANS	KIA	
Timothy Paul	DIAMOND	
Stephen Traynor	DIAMOND	
JOHN CAVANACH	JUSTICE CANADA	
DAVE OSKOW	DIAMOND	
TIM BROWN	IR Done	
Jack Kanyuk	KIA	
Eric Deaton	INAC - Eastern Lab	
Holger Hartmann	INAC - Bar Eng Inc	
CARL McLean	INAC	
Hayden Wilson	MINIMAX NOVA	
Dan Scott	SRK	
Bob Humphreys	Geotek	
Kate McGee	Chemistry	
Ben Wheeler	INAC / INAC	
George Hahngak	NTI Labors	
Rick Patterson	Protesters Association	
Gert Clauke	KIA	
BRIAN COTT	AMUL	
STEFAN LORTER	NTI	
KARL TONGANAK	CTA	
ANDREW GORDON	TAHERA	
PAUL PETERSON	DIAMOND	
JOHN STANLEY - PETER	JEFFREY GILLESPIE	
Brian Steele	NPC	
CARSON GORDON	NTI	
JOE CHOKMAN	NTI	

NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

CAMBRIDGE BAY, NUNAVUT

9:00 a.m. – 4:00 p.m.
JANUARY 6, 2004

NAME PLEASE PRINT	ORGANIZATION	SIGNATURE
Anne Wilson	EC	M. A. Wilson
D. Lyall		
Patrick Duxbury	Nunavut Water Board	P. Duxbury
MARTHA OTEKUK		
Julie Dahl	ITC	J. Dahl
SAM KULIKTHUPIL		S. Kulikthupil
Don Carr	CAF	Don Carr
JDA Kulikthupil		JDA Kulikthupil
Cynthia Ekpakohalele		Cynthia Ekpakohalele
Bradley Wengnek		Bradley Wengnek
Sandra Carter		
Charlotte Lyall		
Jamille Taylor		
Rebecca Remington		
Mary Maw		
AVAK KIMAKSUIT		
Cady Vacke		
Jonathan Charles		
Mark Pedersen		
Elvis Enayak		
Kenne Lippert		
Kenneth Angimutok		
Glen K. L.	NTI	Glen K. L.
Andrew Subilinski	Musical Technologies	Andrew Subilinski
Matthew L...	CR	Matthew L...
Robt. H...	Robt. H...	Robt. H...
Carol Smith	MAA Logistics	Carol Smith
Stephane Cote	DFC	Stephane Cote

NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

CAMBRIDGE BAY, NUNAVUT

9:00 a.m. – 4:00 p.m.

JANUARY 6, 2004

NAME PLEASE PRINT	ORGANIZATION
David Holmstrom	NuB
Brenda Janda	Education
Tommy Atiak	NTI
John B. Schuss	High School
Stuart Kemok	High School
Stuart Kemok	High School
Stuart Kemok	High School
Clinton Pungayuk	High School
Denise Underbrink	High School
Noemie Angulalik	High School
Logan Van Dyke	High School
Kathleen Kavanagh	High School
Paiselle Taptoria	High School
Greg Kavanagh	High School
Stuart Kemok	High School
Chris Emingak	High School
Chris Emingak	
A. K. Kavanagh	
John Kavanagh	NAC
John Kavanagh	NAC
Marka Neelak	NAC
Cynthia Aaluk	NAC
John Kavanagh	
John Kavanagh	
John Kavanagh	

SIGNATURE
<i>David Holmstrom</i>
<i>Brenda Janda</i>
<i>Tommy Atiak</i>
<i>John B. Schuss</i>
<i>Stuart Kemok</i>
<i>Stuart Kemok</i>
<i>Clinton Pungayuk</i>
<i>Denise Underbrink</i>
<i>Noemie Angulalik</i>
<i>Logan Van Dyke</i>
<i>Kathleen Kavanagh</i>
<i>Paiselle Taptoria</i>
<i>Greg Kavanagh</i>
<i>Stuart Kemok</i>
<i>Chris Emingak</i>
<i>Chris Emingak</i>
<i>A. K. Kavanagh</i>
<i>John Kavanagh</i>
<i>John Kavanagh</i>
<i>Marka Neelak</i>
<i>Cynthia Aaluk</i>
<i>John Kavanagh</i>
<i>John Kavanagh</i>
<i>John Kavanagh</i>

NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

CAMBRIDGE BAY, NUNAVUT
9:00 a.m. – 4:00 p.m.
JANUARY 7, 2004

NAME	ORGANIZATION
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PAUL OSCAND	GLU / INAC
ERIC DENHOLM	
LAURENCE GOULET	YKDFN
TIM BYERS	YKDFN
ALFRED BAILLARGON	YKDFN
ALFRED KITIG	
S. ANGOPIKTOP	
Arvid Pedersen	KIA
Jason Tolcomark	KIA
Stephen Traynor	NINON
M.R. Makasguk	NAC Nun Arc College
TAKOLAKO OTOGIK	at Home Nion
George Halkongak	NTI LANDS
Julio Dahl	DFC
Roger Lewis	COUP
PERSON GIMIS	NTI LANDS
Robert Epsey	NTI LANDS
Murray Goffe	URCA
NAM THAIPEGAK	unemployed
Chris Smith	unemployed
Alfred Kitig	
Colin Smith	NARS LOGISTICS
Jack Kaniak	KIA

SIGNATURE

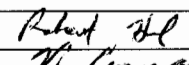
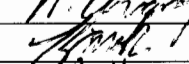
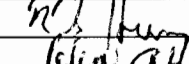
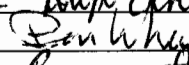

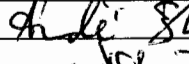
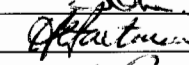
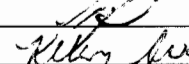
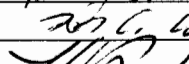
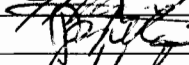
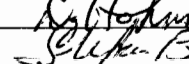
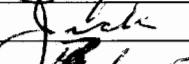
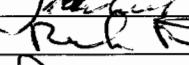


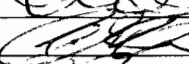
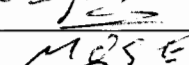
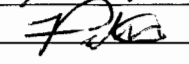



NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

CAMBRIDGE BAY, NUNAVUT

9:00 a.m. – 4:00 p.m.

JANUARY 7, 2004

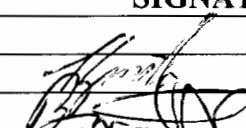
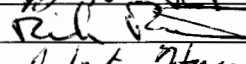
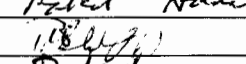
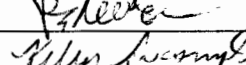
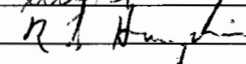
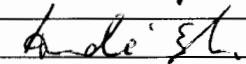
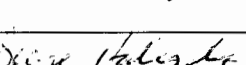
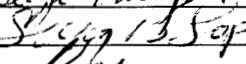
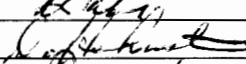

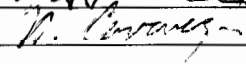
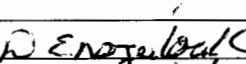

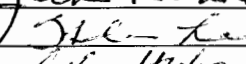
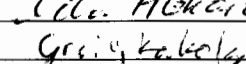
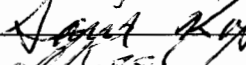
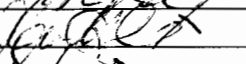
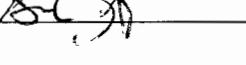



NAME	ORGANIZATION
PLEASE PRINT	
Robert Hornel	RHA
NORTH CAVANAGH	JUSTICE CANADA
Grant Smith	Nuna Logistics
Bob Humphries	Levitt
John Abernathy-Gillis	DIAND
Ken Wheeler	DIAND/NEMO
Dave Orr	AMEC
PAUL DARTRIDGE	DIAND
André Sobolewski	Microbial Technologies
J. DONIHIE	KIA
H. Hartmann	BGC Eng. / INAC
S. Standen - PESTER	DE BEERS CANADA
Kelly Greenough	SRK (for Tahera)
Anne Watson	EC
Nancy Evison	MYRAMEX
John McCreath	Clearwater Corp
David Hohnstein	NWB
Stefan LOPATKA	NTI
Jack Kaurak	KIA
DEMI HUBERT	Hobart/Tahera / TAHERA
R. Pattenden	Mainstream Aquatics
Glen Scott	SRK
Carl McLennan	DIAND
Charles Drouin	INAC
KAREE TOROSANAK	GIN
ANDREW GORHAM	TAHERA CORP
Brian Steele	NPC
MOSES KOTHE	ELI
Pat Duxbury	NWB

SIGNATURE






















NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

KUGLUKTUK, NUNAVUT
 10:00 a.m. – 5:00 p.m.
 JANUARY 8, 2004

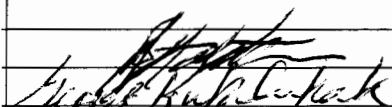
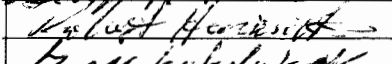

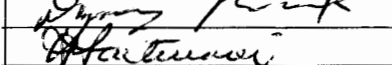
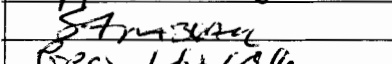
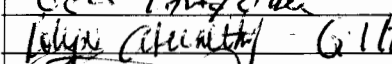

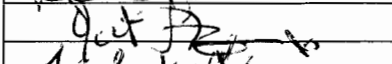
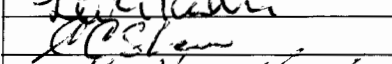
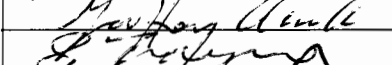
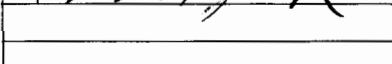
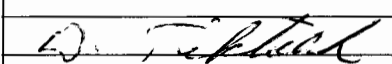
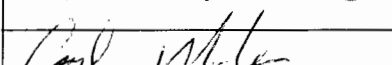
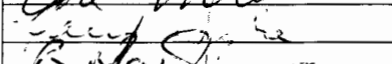
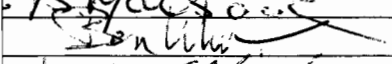
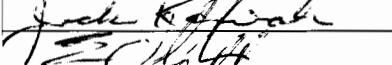
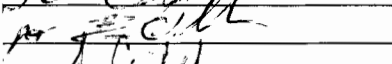
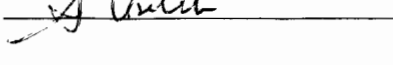



NAME PLEASE PRINT	ORGANIZATION
Lois Smith	Nuna Logistics
Garce Ctr	AMEC
Rick Pattenden	Mainstream Agriculture
Robert Harnd	RHA
Ben Hubert	Head of Area TAHERA
Pete McGrath	Clearwater Consulting
Kelly Sexsmith	SRK 'For Tahera'
Bob Humphries	Leviton
Cam Scott	SRK Consulting
Andre Sobolewski	Microbial Technologies
Louie Harkovak	
George Harkovak	NTI Litmus
Stefan Lupatiz	NTI
MILLIE EVALIK	KIA
David Holmstein	NWB
JAN HARRIGAN	Resident
JAN HARRIGAN	EP Services & NU
NORM CAVANAGH	JUSTICE CANADA
Kwip Nip	
Darrell Enockloak	
Christoph Kook	
Jack Kaniak	KIA
Helen Harkovak	Nunavut Heritage Coll
Ida Harkovak	student ABC
Ging Karkovak	Student HBE
Sam Kapp	
Johnny Kook	ELDER
MIKE HALLA	Postgraduate Student
DAN LILGON	RETADE STUDENT

SIGNATURE






















NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

KUGLUKTUK, NUNAVUT
10:00 a.m. – 5:00 p.m.
JANUARY 8, 2004

NAME	ORGANIZATION
PLEASE PRINT	
Robert Walton	NAC
George Kukicuwak	
Robert Hinganik	Pre-trades
Gary Kukulukak	pre-trades
Elijah Karsyde	
Danny Mannak	Hamlet
Holger Hartmann	Bac Eng. Inc / INAC
Stanley Anablu	MANOR
George Hayden	HAMLET
Wynne Akurijuk-Gillis	DIAND - Igloodit
Charles Brown	INAC
Millie Kuliktana	Kilikmeat School Operation
Pat Larocque	DIAND
Leon Kudluk	NAC Pre-trades
Carl Shaw	Hamlet
Geoff Clark	KIA
Stephan Triguier	DIAND
Christina Pigalek	
A. A. K. K. T. A. K.	
D. T. I. A. L. L. K.	INAC
Anne G. G. G. G.	
Carl McLenn	DIAND
LARRY DYKE	INAC
B. MACISAAC	INAC
Ben Wheeler	INAC
Jack Kapiak	INAC
Eric Denholm	INAC - Gertner Lee
David Osmond	
Stephania Cuthbert	DFU

SIGNATURE






















NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

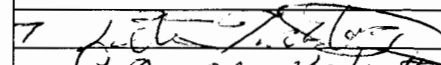
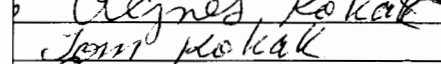

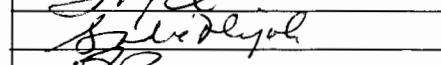
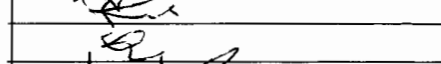

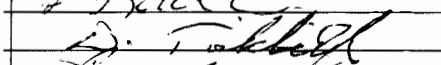
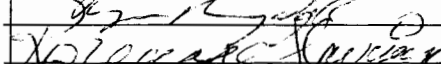
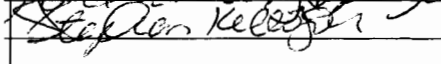
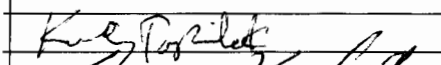
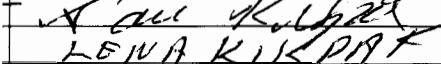
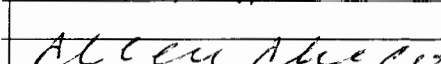
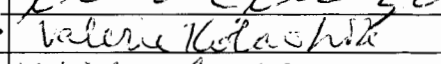
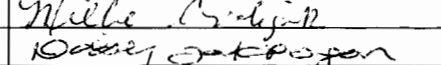
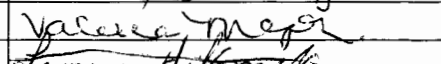
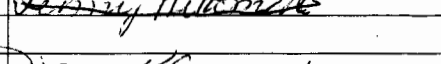
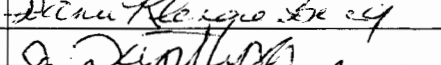
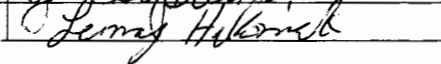



KUGLUKTUK, NUNAVUT
 7:00 p.m. – 10:00 p.m.
 JANUARY 8, 2004

NAME PLEASE PRINT	ORGANIZATION	SIGNATURE
Andrew Klengenberg		Andrew Klengenberg
Marlene Plunions		Marlene Plunions
Jeanne Taptuna	KHA	Jeanne Taptuna
Jack Replund	K Hamlet	Jack Replund
Jack Hamish	HTO	Jack Hamish
William Fitzgerald	" "	William Fitzgerald
Catherine Kuselak	resident	Catherine Kuselak
MOSES ERNTIMK	KUGLUKTUK	Moses Erntimk
Arthur Umak	Kugluktuk	Arthur Umak
Raymond Umak	Kugluktuk	Raymond Umak
Robert Walton	NAC	Robert Walton
Millie Inguvaluk	Hamlet	Millie Inguvaluk
SIELE		SIELE
John Whitaker		John Whitaker
Andy Oshlak	fire Dept	Andy Oshlak
Whial	Hamlet of Kugluktuk	Whial
SEUJOCOTAK	Education	SEUJOCOTAK
JEANNE HAH	School	JEANNE HAH
Adrian Kudlak	School	Adrian Kudlak
ROSE EAGLE		ROSE EAGLE
Beatrice Umak		Beatrice Umak
Young Kuningak	Hamlet	Young Kuningak
Nancy Kallu		Nancy Kallu
Bruce Hilda toh	First Air	Bruce Hilda toh
Brenda Kokak		Brenda Kokak
Boj Klengenberg		Boj Klengenberg
Frank Bolt		Frank Bolt
Martha Juleto		Martha Juleto

NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

KUGLUKTUK, NUNAVUT
 7:00 p.m. – 10:00 p.m.
 JANUARY 8, 2004

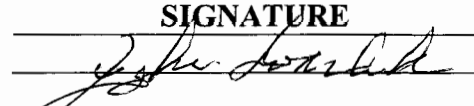
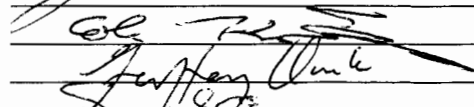
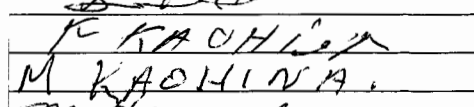
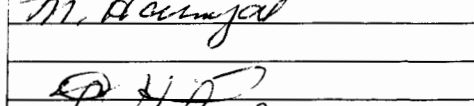
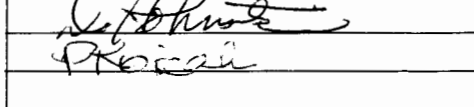
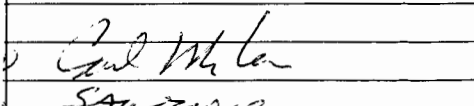
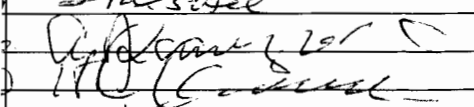
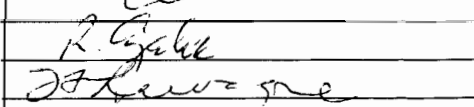
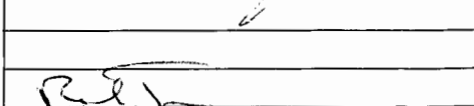
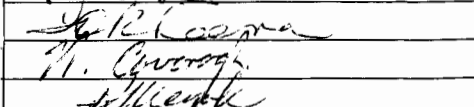
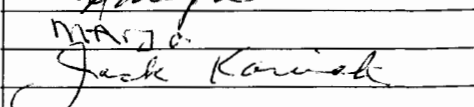



NAME PLEASE PRINT	ORGANIZATION
ETER TAKTOGAN	HTO
AGNES KOKAK	Day care
TOM KOKAK	
GORDON HIKOMAK	I H I
FRANK	
SADIE MINOR	
FRANK IPAKSHAK	
Mary Ipakshak	
GEORGE HANILIAK	
PHIL	KHTA
DAVID TILBURN	INDIC
KYRA NIVIMORE	
JOANNE KILGORE	
Stephen Kellogg	DEAVIK
Mona Aviah	Housing Association
Kidgy Topjak	
LARRY KILPAT	REHVER
LENA KILPAT	"
MARLYN BULL	Kugluktuk
ELLEN MEGGON	Kugluktuk
Valerie Kolachuk	Kugluktuk
MILLIE AYALIGAK	Kugluktuk
Daisy Taktoogan	"
Valerie Meggok	Kugluktuk
JOSEPH NIVIMORE	Kugluktuk
DAVID KILGORE	"
JOANNE KILGORE	"
ASON TAP TUNA	"
Lenny Hikomak	"

SIGNATURE






















NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICO DIAMOND MINE PROJECT HEARING REGISTRY

KUGLUKTUK, NUNAVUT
 7:00 p.m. – 10:00 p.m.
 JANUARY 8, 2004

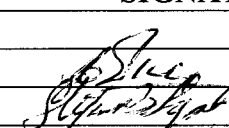
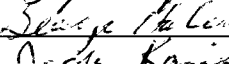
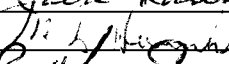

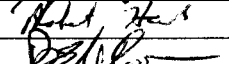
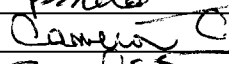
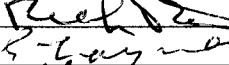
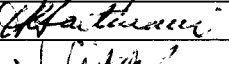
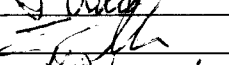
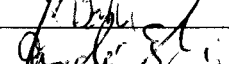
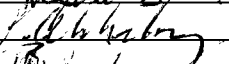
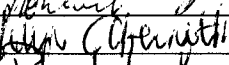
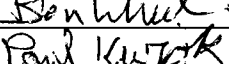
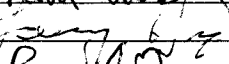
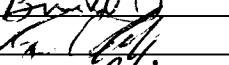
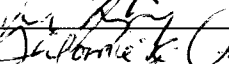
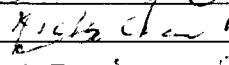
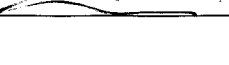



NAME PLEASE PRINT	ORGANIZATION
JATHIN IKAPELLUT	
Colin Hovioyak	
Geoff Clark	KIA
Simon Kulukto	Pa. 3012
F. KAONINA	
MARJORIE NIJIDYAK	
Gene Idunait	Elder
Donald HAVIOYAK	MLA
David Hohnstein	NWB
DAULETTE KOKAK	
LAURA KOKAK	
JATHIN-KOWOKTAK	
CARI McLean	INAC
Stanley Anoblek	MA 402
Angela Kunungbul	
Gregory T. 3041	Ta. 3041
Heidi Otokanooti	NIRB
Robert Ayale	
Heidi Koroque	NAC
MATE INUKFALIK	
Louis KAKOUEK	
Rick Patterson	Mainstream Analytics
IDA OKHEEN	
NORM CALANACH	JUSTICE - CANADA
Rosemarie Illeypuk	KSO
Monica Argonistich	DSD
Rick Kaniak	KIA
Wargwet Taktoen	

SIGNATURE















NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

GJOA HAVEN, NUNAVUT
12:00 p.m. – 6:00 p.m.
JANUARY 9, 2004

NAME PLEASE PRINT	ORGANIZATION
CHARLIE EVAZIK	KIA
STEFAN LOPATKA	NTI
George Hekengat	NTI Lands
Jack Kanisak	KIA Lands
Bob Humphries	Coastlin
B MacIsaac	GN
Court Smith	Nuna Logistics
Robert Havel	R. J. Havel Associates
Pete McNeill	Clearwater Consultants
Cam Scott	SRK Consulting
Rick Patterson	Mainstream Aquatics
Stephen Traynor	INUVIT
Holger Hartmaier	BAC Engineering / INAC
Stephanie Smith	DFO
Eric Dearden	INAC - Gordon Lee
Julie Dahl	DFO
Andre Scholewski	Microbial Technologies
Peter Akilungwa	Maple
BEN HUBERT	Hubs, Hubs, Tahera
John Abernethy Ellis	DIAND
Ben Wheeler	DIAND / NEMO
Sam Kivok	INAC
LARRY DYKE	NRCAN
Bruce Ott	AMEC
Paul J. Kallay	STR
Jerry Argue	Committee of Gjoa Haven
Salemia Argue	Gjoa Haven Elders
Stanley Morris	INAC
Louise Kameemah	INAC

SIGNATURE






















NUNAVUT IMPACT REVIEW BOARD TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT HEARING REGISTRY

GJOA HAVEN, NUNAVUT
 12:00 p.m. – 6:00 p.m.
 JANUARY 9, 2004

NAME PLEASE PRINT	ORGANIZATION	SIGNATURE
David Hohnstein	NWIB	D. Hohnstein
Eddie Kikook	own Self Pros	Eddie Kikook
NORM CAVANAGH	JUSTICE CANADA	N. Cavanagh
CARL McLean	DIAMOND	Carl McLean
George Hukongak	NTL LANDS	George Hukongak
ALICE CAVANAGH	GLU/INAC	Alice Cavanagh
Georgina Pitt	NWIB and	Georgina Pitt
WALTER M. PORTER	ICIA	Walter M. Porter
Reidger Bosch	Resident	Reidger Bosch
Mouam adham		Mouam adham
Khonda Nunglathay	School	Khonda Nunglathay
Mouam adham	School	Mouam adham
Marvin Atchuk		Marvin Atchuk
Kevin Forsyth		Kevin Forsyth
KYLE Tootine		Kyle Tootine
Wally Porter	High School	Wally Porter
Bruce Ameralik		Bruce Ameralik
Simon Higinia	High School	Simon Higinia
Scott Nunglathay	" "	Scott Nunglathay
Debra J. Higinia	" "	Debra J. Higinia
Begum Kamook	Handled	Begum Kamook
Younggagay		Younggagay
Ulrich Obed		Ulrich Obed
Sydas S.R. KARAO		Sydas S.R. KARAO
Natasha Akuk	High school	Natasha Akuk
Shelly Ilicuag	High School	Shelly Ilicuag
Jonathan Piquist	High school	Jonathan Piquist
Josephine Kamook	Handled	Josephine Kamook

NUNAVUT IMPACT REVIEW BOARD

TAHERA CORPORATION – JERICHO DIAMOND MINE PROJECT

HEARING REGISTRY

GJOA HAVEN, NUNAVUT

12:00 p.m. – 6:00 p.m.

JANUARY 9, 2004

NAME PLEASE PRINT	ORGANIZATION	SIGNATURE
Jeanie Poyatak	School	Jeanie Poyatak
Edwina Porter	Nunavut Elections	Edwina Porter
BEN PULUGU		
Elizabeth Kamumalik	Nunavut Arctic College	Elizabeth
Ruby Kigock	Nunavut Arctic College	Ruby Kigock
R. P. J. C.		
KATHY ODERK	School	Kathy Oderk
Joanne Aaluk	School	Joanne Aaluk
Rosie Porter		Rosie Porter
Florence Likoak	Arctic College	Florence Likoak
DAVE HANCOCK	Resident	Dave Hancock
616	Elder	George Kamookak
10-616	Elder	Mary Kamookak
RUTH RUBEN	Elder	Ruth Ruben
Helen Turpilik	Hamlet Council	Helen Turpilik
JOSEPH AKOAK	Elder	JOSEPH AKOAK
Phyllis Beaulieu	NARB	Phyllis Beaulieu
Theresa Carter	SCNRBC	Theresa Carter
Adam Ogilvie		Adam
10-CEP		
JOANNE SALLERINA	Quesnum Ziliharvik	Joanne Sallerina
Joanne Alkikungwa		Joanne Alkikungwa
Teddy Carter		Teddy Carter
Anita Klagenberg		Anita Klagenberg
Allen Siksik		Allen Siksik
Paul Kurok		Paul Kurok
10-CEP		
Alex Ruben		

Appendix 2 - List of Exhibits

EXHIBITS

Exhibit No. 1:	KIA Presentation and Speaking Notes of Charlie Evalik
Exhibit No. 2:	IIBA Entered Into Between Tahera and KIA, Filed January 7, 2004
Exhibit No. 3A:	Hard Copy of Tahera Presentation of January 5, 2004
Exhibit No. 3B:	Tahera Presentation on CD Rom
Exhibit No. 4A:	Hard Copy of Tahera Community Presentation of January 6, 2004
Exhibit No. 5:	Tahera Errata on Ammonia Discharge
Exhibit No. 6:	Tahera Errata Re-run Dilution Model
Exhibit No. 7:	DIAND Slide Presentation
Exhibit No. 8:	KIA Slide Presentation
Exhibit No. 9:	NTI Written Presentation to NIRB in Cambridge Bay
Exhibit No. 10:	DFO Slide Presentation
Exhibit No. 11:	DOE (Environment Canada) Slide Presentation
Exhibit No. 12:	"Mine Site Reclamation Policy for Nunavut"
Exhibit No. 13:	"A Review of the Environmental Effects of Diamond Mining" By Mr. Sobolewski, et al
Exhibit No. 14:	Map B Entitled "Main Area of Caribou Movement"
Exhibit No. 15:	Canadian Dam Association Dam Safety Guidelines
Exhibit No. 16:	Yellowknife Dene Slide Presentation
Exhibit No. 17:	Written Submission of Hamlet of Cambridge Bay Filed on January 7, 2004
Exhibit No. 18A:	Independent Environmental Monitoring Agency Plain English Report
Exhibit No. 18B:	Independent Environmental Monitoring Agency Technical Report
Exhibit No. 19:	DFO Letter to NIRB Dated December 19, 2003

Final Hearing Report for the Jericho Diamond Project

Exhibit No. 20:	Summary of the CV's of the Tahera Consultants
Exhibit No. 21:	AEMP Re-evaluation and Refinement Report: Proposed Program 2003 – 2007
Exhibit No. 22:	KIA Presentation in Kugluktuk
Exhibit No. 23:	Department of Sustainable Development, Government of Nunavut Written Submissions
Exhibit No. 24:	Air – Quality Monitoring at the Ekati Diamond Mine Report
Exhibit No. 25:	Hamlet of Kugluktuk Presentation
Exhibit No. 26:	NRCan Submission, Report by MacKay "On the Growth of Permafrost by Means of Lake Drainage"
Exhibit No. 27:	NRCan Slide Presentation
Exhibit No. 28:	NTI January 9 th Presentation
Exhibit No. 29:	NTI's Three Presentations on Floppy Disk
Exhibit No. 30:	Four- Page KIA Summary Presentation in Gjoa Haven
Exhibit No. 31:	DFO Fish-Out Protocol
Exhibit No. 32:	DFO Slide Presentation – Gjoa Haven
Exhibit No. 33:	DOE Closing Comments Summary
Exhibit No. 34:	DFO Guidelines for the Use of Explosives in or Near Canadian Fisheries Waters
Exhibit No. 35:	CD of All DIAND Presentations
Exhibit No. 36:	Guidelines for Tailings Impoundment in the Northwest Territories
Exhibit No. 37:	A Guide to Management of Tailing Facilities, September 1998 Prepared by the Mining Association of Canada
Exhibit No. 38:	Tahera List of Licenses, Permits and Authorizations Required for the Jericho Diamond Project