Integrating traditional knowledge into the closure planning for the Faro mine

prepared for:

Marg Crombie; Yukon Territorial Government

prepared by:

Gartner Lee Limited

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1 Marg Crombie, YTG

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January 5, 2004

Marg Crombie
Yukon Territorial Government
Whitehorse,

Dear Ms. Crombie:

Re: 30066 – Traditional Knowledge Concept Paper

Attached please find the traditional knowledge concept paper outlining the importance of traditional knowledge in the planning of the closure of the Faro Mine and an approach to encourage community participation.

If you have any questions regarding this material, please do not hesitate to contact me at 867-873-5808 ext. 27.

Sincerely,
GARTNER LEE LIMITED

original signed by

Heidi Klein
Sr. Environmental Planner

HK:HK

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Letter of Transmittal

1. Introduction

Type II mines are a type of contaminated site identified in the *Devolution Transfer Agreement* between the Yukon and federal governments, and have been identified in need of special management[1]. In total, there are seven Type II mine sites in the Yukon. Currently, they are under the control of the federal government, the Yukon government, or their owners. The overall management framework for these sites includes:

- *the development of work plans and budgets for care and mainenance [sic];*
- *abandonment related research and development of abandonment options;*
- *closure plan development;*
- *preparing environmental assessments and meeting regulatory requirements;*
- *reclamation;*
- *monitoring; and*
- *consultation* (http://www.emr.gov.yk.ca/Mining/Type2/managing_sites.htm).

The overall goal for the management of these mines is to bring them to closure as soon as possible. The process of bringing them to closure is designed to involve Yukon First Nations and seek to ensure employment opportunities and other benefits for Yukoners. Of immediate focus for closure planning is the Faro mine in Faro, Yukon.

Involving First Nations of Ross River, Selkirk and Kaska in the closure planning for Faro is vital. The integration of traditional knowledge (TK) is considered an essential part of many environmental management processes which closure planning is. There are examples in other parts of Canada where this is working successfully. For example, in the Northwest Territories (NWT), local First Nations are active participants in the closure and related care and maintenance of Colomac mine. Already, traditional knowledge has been used to protect the migrating Bathurst caribou herd.

The primary purpose of this concept paper would be to initiate the development of guidelines for the integration of TK into environmental management systems for the Faro mine. Secondarily, the results of the proposed work could benefit other closure planning initiatives in the Yukon.

2. Traditional knowledge

The concept of TK has been receiving increasing attention in environmental management for over 10 years. The most publicized consideration of TK and cultural resources in resource planning in the north is

[1] *Type II Mines refer to major mine sites with the potential of unfunded environmental liabilities at the time of closure. If these mine sites are abandoned without proper closure, they could pose substantial damage to the environment as well as financial liability to the government (http://www.emr.gov.yk.ca/Mining/Type2/type2sites.htm)*

the Berger Commission of the mid-70s. More recently, the BHP Diamonds environmental review in the NWT included in its terms of reference the need to give TK full and equal consideration. The outcome of considering of TK in environmental decision-making is a fuller understanding of the impacts to the natural environmental and to the human environment, which relies on nature.

There are many definitions of TK. One recently derived concept of TK (Barnaby and Emery 2002) was presented at a workshop hosted by the Mackenzie Valley Environmental Impact Review Board. The purpose of the workshop was to seek agreement on how to incorporate TK into the Mackenzie Valley environmental impact assessment process.

> *"Traditional Knowledge is knowledge that has been acquired through observation, experiences and interaction of aboriginal peoples with the natural environment over a period of thousands of years. The experience and observations of individuals is shared with members of a "community" and is integrated into collective understandings and interpretations. These interpretations shape behaviors, relationships, beliefs, and socio-economic decisions. This shared experience and understanding is passed on from generation to generation orally, through traditions and ceremonies designed to enlighten community members, and through encouraging members to share their own insights, experiences and observations. The knowledge of individuals about specific geographic areas or as people with specific expertise about certain elements is a normal part of the traditional system. This specialized knowledge, however, is shared openly with the community as a whole, and forms part of the basis for collective understandings. Knowledge is therefore continuously evolving and provides the aboriginal community with the ability to adapt to changes and to predict future outcomes based on past experience. The relationship between people and the natural environment has been informed by this knowledge and has enabled Aboriginal people to use natural resources in a sustainable manner. Aboriginal peoples are best equipped to access, interpret, represent and apply the distinct knowledge of their peoples."*

This particular definition highlights the reasons why environmental management projects, such as mine closure, would benefit from TK. Namely, TK is based on:

- understanding the natural environment;
- experience and observation;
- integration and interpretation;
- shared specialized knowledge; and
- evolving knowledge.

That is, within TK there may be knowledge about the natural environment that exceeds the relatively shorter-term scientific studies. This information may be unique or complementary to other information that may exist.

3. Approaches to incorporating traditional knowledge into mine closure planning

Experience with integrating TK into environmental management regimes is in its infancy in the Yukon. Elsewhere in Canada the experience is more advanced and growing. The Yukon Government and Yukon First Nations now have the opportunity to develop standards that suit their needs and pressures. They also have the opportunity to lead the way when it comes to mine closure planning and mine closures. To proceed expediently, they would benefit from the lessons learned and current best practices in other jurisdictions and build a process from there. The following sections outline one approach to proceeding with developing a means for incorporating TK into mine closure planning.

3.1 Background paper of lessons learned in other jurisdictions

The first step that might be undertaken is the preparation of a paper summarizing the approaches taken in other jurisdictions. Examples that might be drawn upon from the NWT include:

- the closure work for Giant mine (?) or Colomac mine in the NWT;
- consideration of TK in the environmental assessments for the BHP and Diavik diamond mines and the current use of TK in the implementation of these mines;
- outcome of the elders workshop with research scientists;
- West Kitikmeot Slave Study process; and
- the MVEIRB draft Guidelines: *Incorporating traditional knowledge in the environmental impact assessment process* (http://www.mveirb.nt.ca/MVGuides/TK_Guidelines-draft.pdf).

3.2 Workshop

Following on the completion of the background paper, a workshop could be held reviewing the applicability of the lessons learned and best practices from other jurisdictions to the Yukon situation. The workshop could bring together First Nations and government officials. The workshop could also be used to design the process or framework by which TK is included in the closure planning and closure of the Faro Mine. The Faro Mine project could be an immediate example to test TK inclusion.

3.3 TK implementation guidelines

Ultimately, the background paper and the workshop should lead to the development of guidelines that might be used for all the Type II mine closure planning and ultimate closures.

3.4 Who can help

In the ultimate preparation of TK implementation guidelines, there are a number of external resources that may be of help with this work. They include:

- Joanne Barnaby[2];
- Alestine Andre[2]
- Stephanie Sibbetson, Deh Cho Environmental;
- Rachael Crapeau[2], Yellowknives Dene First Nation;
- Peter Usher[2], PhD; and
- Brenda Parlee (PhD candidate).

Joanne Barnaby is a Dene environmental consultant specializing in building on the strengths of both western science and traditional knowledge in the development challenges facing northern and aboriginal communities. Most recently, she co-authored the work of the Mackenzie Valley Environmental Impact Review Board and the consideration of TK in environmental impact assessments. The workshop paper held to their draft guideline previously mentioned.

Alestine Andre works for the Gwich'in Social-Cultural Institute and is a Gwich'in beneficiary. She has authored numerous works on medicinal plant use by the Gwich'in e.g., *Gwich'in ethnobotany : plants used by the Gwich'in for food, medicine, shelter and tools* and has a Masters from the University of Victoria. She bridges both TK and scientific knowledge practices.

Stephanie Sibbetson is a Dene environmental consultant, whose experience rests with working on TK integration, community consultation and liaison, and aboriginal and northern cultural training and awareness. She was also the Science Manager for the Northern Contaminants Program (NCP) aiding in policy decisions and identifying priorities for research on contaminants in the north. She has also Co-chaired the NWT Environmental Contaminants Committee and coordinated and facilitated workshops, and Elders/Scientists retreats.

Rachael Crapeau[3] is the land and environment manager for the Yellowknives Dene First Nations. She has considerable experience in providing input into the environmental assessment process and is involved in the closure planning of several mines.

Dr. Peter Usher is renowned for his work in land use and occupancy mapping. He has spent most of his academic and consulting life working with First Nations and understanding TK. He was a member of the Voisey's Bay Review Panel that pushed the boundaries of TK consideration.

Brenda Parlee (PhD candidate/ consultant) is currently researching traditional ecological knowledge of social-ecological health. Prior to that, she worked with Lutsel K'e Dene First Nation to carry out several traditional ecological knowledge research projects including a monitoring study of the effects of non-renewable resource development on the social, economic and cultural well-being of that community. She also worked with the Gwich'in on a local and traditional knowledge study about the impacts of the ferry landings on fish and fish habitat.

Report Prepared By:	**Report Reviewed By:**
Heidi Klein	N/A

Heidi Klein
Sr. Environmental Planner

[2] These are just suggested names and these individuals have yet to be contacted to determine their interest. Gartner Lee has worked with each of these individuals in previous projects.

[3] Rachael has not yet been contacted to determine interest in participating.