

Mackenzie Valley Environmental Impact Review Board

Report of Environmental Assessment and Reasons for Decision on

Sidon International Resources Corp. Exploratory Drilling at Defeat Lake EA0506-006

February 6th, 2008

R	REVIEW BOARD ENVIRONMENTAL ASSESSMENT DECISION				
E	ECUTIVE SUMMARY	IV			
1	1 INTRODUCTION1				
2	SETTING AND PROJECT BACKGROUND1				
	2.1 SETTING	2 4 4			
3	ENVIRONMENTAL ASSESSMENT PROCESS	7			
	3.1 ENVIRONMENTAL ASSESSMENT APPROACH	8 8 8 9			
4	COMMUNITY ENGAGEMENT	11			
_	 4.1 DEVELOPER'S SUBMISSIONS	13 14			
5					
	5.1 Developer's Submission 5.2 Parties' Submissions 5.3 Review Board Conclusions	17			
6	SOCIAL AND CULTURAL ISSUES	19			
	 6.1 HERITAGE RESOURCES AND GRAVES	20 24 29 33 33 34 35			
	 6.2.4 Effects on Traditional Activities 6.2.5 Review Board Findings and Conclusions 				
	 6.2.6 General Conclusions on Cultural Impacts	43 43 44 44			
7	CONCLUSIONS	50			
8	SUMMARY OF MEASURES	51			
A	PENDIX: PUBLIC RECORD INDEX	52			

Table of Contents

List of Acronyms

CGV	Consolidated Goldwin Ventures Inc.
DFO	Department of Fisheries and Oceans
DKFN	Deninu Kue First Nation
INAC	Indian and Northern Affairs Canada
NSMA	North Slave Metis Alliance
MVEIRB	Mackenzie Valley Environmental Impact Review Board
MVLWB	Mackenzie Valley Land and Water Board
MVRMA	Mackenzie Valley Resource Management Act
PWNHC	Prince of Wales Northern Heritage Centre
Sidon	Sidon International Resources Corporation
YKDFN	Yellowknives Dene First Nation

Review Board Environmental Assessment Decision

To make its decision in this environmental assessment, the Review Board has considered all the information on the public record.

It is the Review Board's opinion that this proposed development is likely to cause significant adverse impacts, but that these impacts can be prevented if specific measures are undertaken.

The Review Board has identified three measures for this purpose. These measures prevent harm to heritage resources, and prevent the creation of new access to the area.

The Review Board recommends, under section 128(1)(b)(ii) of the *Mackenzie Valley Resource Management Act*, that the proposed development may proceed only with these measures to prevent the predicted significant adverse impacts.

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Gabrielle Mackenzie-Scott Chairperson of the Mackenzie Valley Environmental Impact Review Board

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Executive Summary

The Mackenzie Valley Environmental Impact Review Board ("Review Board") conducted an environmental assessment of a diamond exploration project proposed by Sidon International Resources Corp. The proposed project involves drilling up to three holes on a mineral claim at Defeat Lake, using a drill that can be moved by helicopter. The claim block is located 20 kilometres inland of the north shore of Great Slave Lake between Wool Bay and Drybones Bay. The company proposes to build a new 22 kilometre winter road, from the shore to Defeat Lake.

The Review Board heard from Aboriginal groups, government and members of the public. During a public hearing at Yellowknife, Northwest Territories, many cultural and social concerns were raised about how important the area is to Yellowknives Dene First Nation and other Aboriginal people. The Review Board heard concerns about possible disturbance of heritage sites, including graves.

Parties described to the Review Board that other activities on the land are affecting traditional harvesting. These include other mineral development projects, and many recreational snowmobilers and hunters accessing the area from the nearby City of Yellowknife. Parties described how these activities are affecting traditional harvesting, and how the proposed project in combination with what is already happening would result in a loss of the traditional value of the area.

The Review Board finds, based on the evidence on the record:

- 1. The subject area is important to Aboriginal land users. It contains many heritage sites, including graves, and there are likely more that have not yet been officially recorded.¹
- 2. Changes on the land are affecting traditional activities. These changes are caused in part by increasing recreational snowmobile use and hunting in the area of the proposed development, and in part by increasing development in the region.²
- 3. These changes on the land will affect the cultural practices of Aboriginal groups that use the area affected by the development.³

The Review Board finds that cultural impacts are being caused by the increasing number of developments, including the proposed project, in this important area. These impacts would be made worse if the proposed winter road to Defeat Lake is built.

¹ See section 6.1.3

² See section 6.2.5.1 and 6.3

³ See section 6.2.5.1 and 6.2.5.2

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

The Review Board has concluded that the following measures are required to prevent significant impacts:

- To ensure identification of any heritage sites, all access routes and drill locations will be scouted in advance by an Aboriginal Elder and an archaeologist to identify possible heritage resource sites.
- To prevent harming any heritage site, no part of the development will happen within 100 meters of any known or suspected archaeological, burial or cultural site.
- The company will only be allowed to use helicopter access for this development. instead of the proposed new winter road inland to Defeat Lake. The only exceptions will be for snowmobiles going to and from nearby camps.
- The Yellowknives Dene First Nation will have a role in choosing the location for these camps.

1 Introduction

This is the Mackenzie Valley Environmental Impact Review Board's (MVEIRB or Review Board) *Report of Environmental Assessment* for a proposed mineral exploration program at Defeat Lake. The program has been proposed by Sidon International Resource Corp. (Sidon). The purpose of this report is to satisfy the reporting requirements of the *Mackenzie Valley Resource Management Act* (MVRMA or the Act) s.128(2) and 128(4) and to convey the Review Board's decision on whether the proposed development is likely to cause significant adverse impacts on the environment, or be a cause of significant public concern.

2 Setting and Project Background

2.1 Setting

The proposed mineral exploration program is located at Defeat Lake, approximately 20 kilometres inland near the north shore of Great Slave Lake, NWT. It is southeast of Yellowknife Bay and the communities of Yellowknife, Ndilo and Dettah.

The area is ecologically characterized by sub-arctic boreal forest and Canadian Shield, with soils containing discontinuous permafrost. The area contains numerous small lakes, often linked by fast-flowing streams that eventually flow into Great Slave Lake. Black spruce bogs are typical of low areas. Wildlife includes moose, black bear, boreal caribou, wolf, beaver, muskrat, snowshoe hare, spruce grouse, marten and lynx. Most of the bird species are migratory, although some over-wintering species are present. Mean summer and winter temperatures are 11°C and -21.5°C respectively.

The subject area⁴ is used by aboriginal communities in the region, with several having recorded intensive historical and current use. Due to its proximity to communities of Yellowknife, Ndilo and Dettah (see Fig. 1), the area is relatively accessible. The area is increasingly used by Yellowknife residents for recreational purposes.

The subject area has been the site of mineral exploration activities since the 1930s. Exploration interest in the area has been renewed with the discovery of diamonds in the NWT and the subsequent development of the Ekati, Diavik and Snap Lake diamond mines. Much of the area near the shoreline of Great Slave Lake has been staked and claimed.

⁴ See section 2.2 for a definition of the *subject area*.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

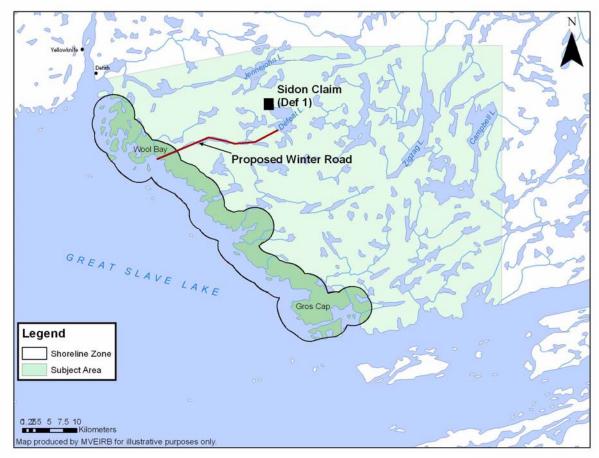


Figure 1: Development setting, Shoreline Zone and subject area

2.2 Defining Geographic Terms

The specific definitions of the geographic terms used in this report are defined below.

Throughout the hearings of this environmental assessment and previous environmental assessments dealing with the same area, the Yellowknives Dene First Nation (YKDFN) frequently used the term "Drybones Bay" to refer to a much larger area than the bay itself, but also referring to a length of surrounding shoreline and points inland. During the hearing, YKDFN legal counsel Greg Empson identified the challenge of providing a detailed boundary to the area, and explained that Elders are "looking at a broad perspective of a land they've used for generations" (p62 day 2).

The Review Board received a map of land use based on traditional knowledge from the YKDFN produced in regard to the proposed development. It indicated traditionally used areas in the vicinity. The Review Board received further clarification from YKDFN specifying what was meant when YKDFN members referred to "the whole of the

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008 Drybones Bay area" (PR#129)⁵. The YKDFN stated that the traditional land area that its members had previously referred to as the area around Drybones Bay referred to "the whole of the area, not only around Drybones Bay, but all of the lands east of Great Slave Lake south of the community of Dettah to the East Arm of Great Slave Lake and thence inland" (April 23, 2007 YKDFN letter, PR#114). It confirmed that this is the area that was referred to by YKDFN members during the environmental assessment hearing, and stated that further details were unavailable due to confidential land claim negotiations that are underway.

The Review Board has considered this information. It is aware that the cultural concerns voiced by the YKDFN and others (see section 6) are related in part to traditional use, and this requires that the traditionally used area be duly considered in evaluating cultural impacts. However, the area described by the YKDFN includes a larger region than the general area of the claim block where the development is proposed. In the opinion of the Review Board, it is not appropriate to extend its consideration of impacts as far as the East Arm of Great Slave Lake. These areas will not be affected by this development and to do so would reduce the focus of this assessment on areas of primary importance. The Review Board has therefore attempted to balance the need for inclusion of traditionally used areas in the general vicinity of the development with the need to focus on areas of particular concern. The subject area it has defined below reflects this.

Within this report, the term "**subject area**" refers to the general area of focus for this Environmental Assessment (see Figure.1). It encompasses the land area that is:

- south of the northern tip of Jennejohn Lake (62°27'17"N, 113°41'16" W);
- west of the eastern shore of Campbell Lake (62°21'51" N, 112°53' 18" W); and,
- bordered to the south and west by the extent of near-shore islands adjacent to the shoreline of Great Slave Lake.

This is identified as the subject area, encompassing all the locations of proposed drill sites (which extend west to Zig Zag Lake, next to Campbell Lake), and includes the majority of the traditionally named areas, traditional trails and burial sites identified by the YKDFN.

The term "**Shoreline Zone**", as used within this report, refers to the portion of the subject area found between Wool Bay and Gros Cap within three kilometres of any part of the shore of Great Slave Lake. This is an area with highest levels of traditional use and the highest density of heritages sites. It is consistent with the area described as the Shoreline Zone in previous Environmental Assessments reports on Consolidate Goldwin Ventures, North American General Resources Corp., and Snowfield Development Corp. (See Map 2). It also extends to include the area surrounding nearshore islands and bays adjacent to the shoreline.

⁵ Throughout this report, references to documents on the Public Registry are denoted by their Public Registry number ("PR#"). The appendix of this report lists the document titles and authors by these numbers.

2.3 Proposed Development

2.3.1 SCOPE OF DEVELOPMENT

The scope of the development, as described this section (2.3), is based on the description of the proposed development from the following sources:

- The amended *Land Use Permit Application* (MV2004C0039) dated September 15, 2004, submitted to the Mackenzie Valley Land and Water Board (MVLWB) by Sidon (PR#6), and supporting information submitted by the developer in support of the application (eg. PR# 141);
- Information request responses submitted by Sidon (PR#12; 34; 42; 156);
- The developer's presentation (PR#103; 117) and statements at the environmental assessment hearing held on April 3rd and 4th 2007; and
- Any additional materials submitted by the developer to the public registry

The developer proposes to conduct mineral exploration to delineate economic mineral deposits of diamonds. Given the nature of mineral exploration, the project may or may not lead to future drilling or advanced exploration.

The Scope of Development includes:

- exploration drilling of one to three bore holes at the DEF Claim at Defeat Lake (see Figures 1 and 3).
- construction and maintenance of a winter road approximately 22km in length from Great Slave Lake near Old Fort Providence (south of Wool Bay) inland to Defeat Lake.
- helicopter support.
- a temporary six person trailer camp near Moose Bay, if needed.
- fuel storage of 205 litres of diesel, 20 litres of gasoline, a 100 lbs cylinder of propane, and 20 litres of lubricants.
- use of a Boyles 38 drill, two assorted pumps, one tractor, and a helicopter.
- use of a tractor on existing trails to move the drill rig between drill sites.
- containment of wastes, including empty fuel drums and food containers, and lakebased drill cuttings, for transported to the Yellowknife landfill.
- deposit of land-based drill cuttings will be in a sump away from lakes or nearby streams.

The applicant has requested a Land Use Permit with a term of five years. For more details about the development, please refer to Sidon's *Land Use Permit Application* (MV2004C0039).

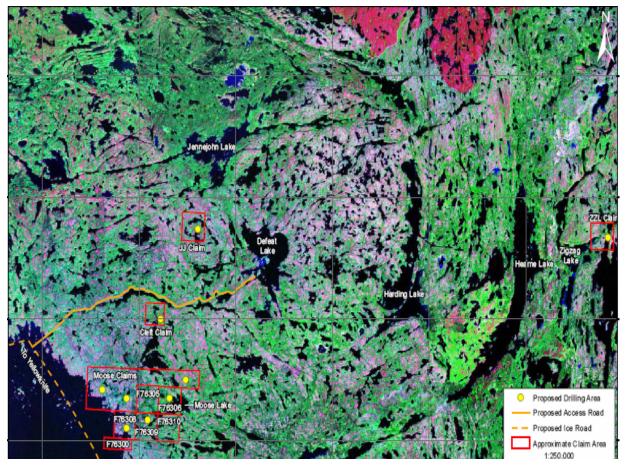


Figure 2- Regional Map. Proposed winter road to Defeat Lake is shown in orange. (*Note: Indications of proposed drilling areas and claim areas refer to proposed work by Consolidated Goldwin Ventures. The drilling area proposed by Sidon is illustrated in section 1, Figure 1 [section 2.3] and Figure 3 [below]*).

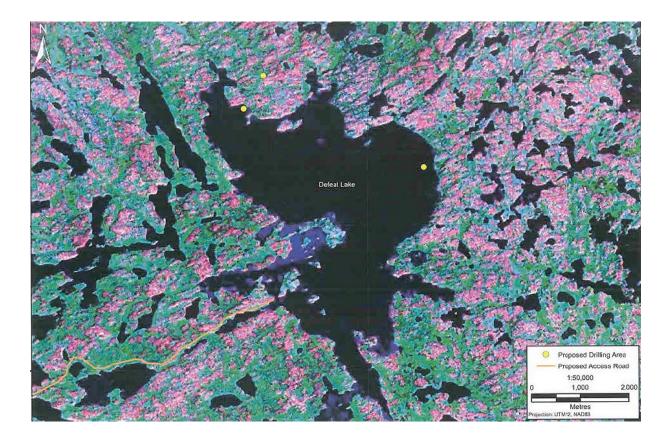


Figure 3- Defeat Lake approximate drill sites and access road (PR#63)

2.3.2 AMENDED SCOPE OF DEVELOPMENT

The Review Board has determined pursuant to subsection 117(1) of the MVRMA that the following actions and commitments by the Developer should be included in the Scope of Development, based on the developer's statements and submissions since the time of the application.

In its response to information requests (PR#53) the developer made the following commitments:

- A maximum number of 3 drill holes per target area would be drilled.
- All drill cuttings from on-ice drilling will be removed and transported to Yellowknife for approved disposal. All drill cuttings from on-land drilling will be placed in a natural depression, or as regulated by the Land Use Permit.
- The minimum distance Sidon considers to be well removed from surface waters would be thirty metres from the normal high water mark of any water body.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

- Sidon will access the NWT Archaeological Sites database on an annual basis to obtain the locations of all archaeological sites within their development areas.
- Through the delineation of drill site locations on water, a visual inspection will be carried out on the lake for spawning shoals and a depth estimate. If required, a bathymetric survey will be conducted to determine the presence of spawning shoals, and the volume and depth of the lake.
- On-ice drilling will only occur during the frozen months and will only be located on areas frozen to the bottom or areas greater than 11 metres deep.
- Sidon is prepared to work with the YKDFN over an extended period of time to ensure protection of heritage resources, and is willing to enter a Memorandum of Understanding with the YKDFN.

3 Environmental Assessment Process

3.1 Environmental Assessment Approach

In developing the process for this environmental assessment, the Review Board considered the nature and scale of the proposed development together with the Review Board's existing knowledge based on four similar assessments in the same subject area. This led the Review Board to adapt the process described in its *Environmental Impact Assessment Guidelines* to one it considered appropriate for this development. The Review Board described its approach in the *Environmental Assessment Workplan*, released on Sept. 27, 2005 (PR#14).

The environmental assessment workplan involved two potential phases. Phase one consisted of a round of information requests and potentially a public hearing to clarify the scope of the development, to clarify the scope of the assessment, to gauge the level of public concern and identify its sources, and to provide the Board with information to address the factors it must consider in environmental assessment.

Following the hearing, if there was deemed sufficient evidence, the Board would close the public record, enter its deliberations, and issue its report of environmental assessment without entering phase two. The Board reserved the right to issue further information requests to parties if it concluded it was necessary.

In the event that the record did not provide the Board with sufficient information, the workplan stated that the Board could enter a second phase of the environmental assessment. This would involve all the typical stages of an environmental assessment including issuance of a Terms of Reference, requirement for a Developer's Assessment Report, information requests, and technical reports. The chronology of the actual process is described in section 3.3.

3.2 Environmental Assessment Scope

3.2.1 PROCESS UNDERTAKEN TO DETERMINE THE SCOPE OF ASSESSMENT

To establish the Scope of Assessment, the Review Board reviewed Sidon's Land Use Permit application to the MVLWB (MV2004C0039). The Review Board also considered comments submitted to the MVLWB during the preliminary screening of same application.

In determining the scope of the assessment, the Review Board considered previous environmental assessments of similar types of mineral exploration programs which have taken place in the subject area. For that reason the Review Board gave consideration to the public records of the environmental assessments which occurred in 2003: Snowfield Development Corp. (EA03-006); New Shoshoni Ventures (EA03-004); North American General Resources Corp. (EA03-003); and Consolidated Goldwin Ventures (EA03-002).

3.2.2 SCOPE OF ASSESSMENT DEFINITION

As required pursuant to s. 117(2) of the MVRMA the Review had to consider:

- the impact of the development on the environment, including malfunctions or accidents and any cumulative impact that is likely to result;
- the significance of any such impact;
- any comments submitted by members of the public;
- the imposition of mitigation measures, where an impact is found; and
- any other matter including available alternatives to the development.

When assessing social and cultural impacts the geographical scope of this assessment included NWT communities that have traditionally used the subject area.

Although the development activities occur primarily on the DEF claim block at Defeat Lake, consideration of a larger area is required to assess the project-specific and cumulative impacts. The physical scope of the assessment includes the subject area (see section 2.2).

The temporal boundaries for this environmental assessment were established to consider cumulative impacts, including past, present and reasonably foreseeable future impacts. This requires broader temporal boundaries than just the operational phase of the drilling program. Therefore the temporal scope was determined to include all phases of the mineral exploration program, from mobilization to post-operation, until such time that no potential significant adverse impacts attributable to the development are predicted to occur.

3.2.3 TRADITIONAL KNOWLEDGE

The Review Board recognizes the important role that aboriginal cultures, values and knowledge play in its decision-making. In accordance with the requirements of Section

115.1 of the *MVRMA*, the Review Board considered any traditional knowledge that was made available during the environmental assessment.

The Review Board, through its experience with conducting the previous environmental assessments in the subject area (EA03-002, EA03-003, EA03-004, EA03-006, and EA 0506-005), is aware of the high importance of the general region to the aboriginal communities of the North Slave in addition to numerous site specific concerns.

At the request of the YKDFN (PR#84), several documents from previous environmental assessments were included on the public registry for the present environmental assessment. These documents provided the Review Board with useful information to assist it in the Review Board's determinations. Traditional Knowledge, in the form of testimony by Elders at the public hearing for this environmental assessment, was also considered by the Review Board.

3.3 Environmental Assessment Chronology

This Environmental Assessment was conducted in accordance with the Review Board's *Environmental Impact Assessment Guidelines*, with modifications as described above, and in accordance with its *Rules of Procedure*. Table 1 describes the environmental assessment chronology.

Date	Stage of Assessment	
Sept. 13, 2004	Application received by MVLWB. Deemed incomplete.	
Oct. 19, 2004	Application received by MVLWB. Deemed incomplete.	
Nov. 2, 2004	Application received by MVLWB. Deemed incomplete.	
Nov. 16, 2004	Application received by MVLWB. Deemed incomplete.	
Dec. 7, 2004	Application deemed complete by MVLWB	
Jan. 13, 2005	MVLWB require further study in response to concerns raised by YKDFN	
Aug. 24, 2005	MVLWB decides to approve proposal in principle.	
Aug. 26, 2005	MVEIRB receives new information from YKDFN, requests	
	MVLWB refrain from issuing permit.	
Sept. 8, 2005	MVEIRB initiates environmental assessment on its own	
	motion pursuant to MVRMA s.126(3) in response to YKDFN	
	concerns regarding the proposed development and	
	consultation issues	
Sept. 27, 2005	Workplan issued	
Sept. 28, 2005	Call to parties for proposed information requests	
Oct. 20, 2005	Information requests issued	
Nov.11, 2005	Assessment adjourned due to inadequacy of developer's	
	responses to information requests	
Feb. 1, 2006	Developer re-submits information request responses	
Feb. 9, 2006	MVEIRB notifies developer that responses are inadequate	

Table 1: Chronology of Environmental Assessment Process

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

July 6, 2006	MVEIRB asks developer to report on application status ⁶	
Oct. 19, 2006	Information responses received from developer. Assessment	
	reactivated by MVEIRB. Workplan updated accordingly.	
Dec. 15, 2006	Information responses received from parties	
March 14, 2007	Pre-hearing conference	
April 3-4, 2007	Public hearing in Yellowknife	
May 3, 2007	Public record closed	
Aug. 3, 2007	Second round of information requests issued regarding	
	parties' views on measures under consideration ⁷	
Aug. 29, 2007	Responses received	
Sept. 1, 2007 to present	Review Board deliberated, produced Report of EA	

At the request of parties, the hearing for this assessment was a joint hearing on applications from Consolidated Goldwin Ventures Ltd. and Sidon. Although these two applications proposed the same crews using the same equipment in the same area in the same season to conduct similar activity, using the same consultants and with the same individuals representing both companies at the hearing, they are different proposals. The companies are related.⁸

3.4 Environmental Assessment Participants

The *Terms of Reference* for this environmental assessment outlined roles and responsibilities of the various participants. The developer was responsible for producing the information necessary for the Review Board and other Parties to evaluate the potential impacts that the Sidon program could cause. Table 2 indicates the parties and their involvement in the public hearing and information request responses.

Table 2 –	Role	of Parties
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Party	Public Hearing	IR responses
Sidon International Minerals Corp.	\checkmark	\checkmark
Yellowknives Dene First Nation	\checkmark	\checkmark
North Slave Métis Alliance	\checkmark	\checkmark
GNWT – Prince of Wales Northern	\checkmark	\checkmark
Heritage Centre		
GNWT – Environment & Natural	\checkmark	\checkmark
Resources		
Indian and Northern Affairs Canada	\checkmark	\checkmark
Environment Canada	\checkmark	\checkmark
Department of Fisheries and Oceans	\checkmark	

⁶ Between Nov. 11th, 2005 and Oct. 19th, 2006, the assessment did not proceed due to outstanding information required from the developer.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

⁷ This was a new step in the process, conducted to provide further evidence to assist Board deliberations. ⁸ See the Review Board's *Report of Environmental Assessment and Reasons for Decision, Consolidated Goldwin Ventures Inc. Mineral Exploration Program, EA0506-005* for a more detailed analysis of the evidence.

Deninu Kue First Nation	\checkmark	\checkmark
Northwest Territory Métis Nation		
(including the Fort Resolution Métis	\checkmark	\checkmark
Council)		
Dene Nation		
Treaty 8 Tribal Corp.	\checkmark	\checkmark

 \checkmark = actively participated in this step of the environmental assessment

4 Community Engagement

The issue of community engagement arose at several points during this environmental assessment. A meaningful and respectful approach to community engagement is required to effectively involve Aboriginal communities and allow them to develop a relationship with the developer. This section describes the items on the public record pertaining to these issues.

The Review Board's analysis of the preliminary screening for the currently proposed development found evidence of inadequate community engagement on the developer's part. This, coupled with the previously stated public concerns regarding the subject area, was cited as the reason the Review Board decided to undertake an environmental assessment on this development (MVEIRB Reasons for Decision Sept. 12, 2005, PR#2).

4.1 Developer's Submissions

The developer submitted an application for the current project on September 13th, 2004. On July 25, 2005, during the preliminary screening, the developer sent a generic fax to the Aboriginal groups on the MVLWB's North Slave distribution list. The fax instructed recipients to contact the developer for further information. There was little response to this fax. The developer later stated that sending the group fax was an adequate community engagement effort.

In the Public Hearing, Laurie Stephenson stated on the developer's behalf, "We definitely tried to make contact with you... and this information was sent to you... With respect to consultation, we were making all effort" (day 2, p129)⁹. The developer confirmed that as of September 26, 2005, there were no further attempts at community engagement with the YKDFN (Sidon letter Sept. 26, 2005: PR#12).

On February 1st, 2006, the Review Board received Sidon's responses to information requests. In these responses the company described the involvement of Aboriginal people in its previous work, and added "We have consulted and will continue to consult with

⁹ Throughout this document, references to statements from the public hearing will be identified by the day on which they were raised (one or two) and the corresponding transcript page. Hearing transcripts in their entirety are included on the Public Registry (PR#124).

YKDFN as demonstrated during our current LUP" (Feb.1, 2006, p10: PR#42). The Review Board notes that the developer's involvement of Aboriginal people in this work was legally required by Review Board measures. This was not deemed sufficient by the Review Board to constitute a meaningful approach to community engagement. The Review Board wrote to Sidon to describe the unsatisfactory nature of Sidon's IR responses.

On November 2nd, 2006, Sidon resubmitted its responses to the information requests originally issued on Oct. 10th, 2005. With respect to community engagement, the response stated that "Sidon recognizes the cultural, spiritual and historical significance of the area proposed for exploration, and thus the importance of consultation with First Nations. Therefore Sidon has formally requested consultation with the YKDFN and is attempting to set up a Memorandum of Understanding to begin the consultation process". The company also stated that it was "prepared to accommodate the YKDFN needs regarding the full protection of significant cultural areas... Sidon is prepared to work with the YKDFN over an extended period of time to ensure protection of heritage resources...". The same response stated that "Sidon accepts that the areas where drilling is proposed have cumulative cultural landscape value" "(Sidon IR Response, Nov 2, 2006 pp 2-1 to 2-4: PR#53).

During the environmental assessment hearing, the developer justified its approach to community engagements referring to the MVLWB as the source of its contact lists (day 1 p77). Greg McKillop spoke at the hearing on behalf of the developers regarding community engagement efforts, stating (day 1 pp33-34):

...We weren't aware of your concerns and we didn't hear about them until the pre-hearing conference, and so we will see what we can do, now that we are aware of your concerns... The companies are committed to working cooperatively with First Nations. They've hired Rescan to assist with their consultation efforts. Last fall Rescan tried to engage the Yellowknives Dene in negotiation of a memoranda of understanding, we weren't successful in completing those negotiations, but there's still an interest in doing that.

Mr. Laurence Stephenson responded on behalf of the developer to a question from the YKDFN asking what assurance the First Nation has that it will be consulted about archeological sites (day 1 p46). Stephenson stated:

We had two First Nations people working with us to help identify that, if there was anything that came up, that...they would be the first to be able to inform us of that. I think we've demonstrated in the past that our ability and our efforts and actions speak louder that words; that we will consult and we intend to consult with the First Nations and -- and all the affected communities. At the end of the second day of the hearing, Rachel Crapeau of YKDFN stated that she had collected information on the subject area, and respecting the bounds of confidentiality relating to claims negotiations, she was prepared to share it with the government, but was no longer willing to meet with this particular developer. In its written closing remarks of April 27, 2007, the developer responded to this, stating (PR#134):

Despite our diligent attempts to consult affected communities, we believe we can always improve our consultation efforts. We expect to adapt our approach as we learn more about potentially affected communities... We intend to improve our approach to include more follow up on our initial contact to determine expressions of interest.

4.2 Parties' Submissions

On Oct. 10, 2005, the YKDFN stated the following view (PR#26, p14)

The Yellowknives Dene do not consider Mr. Stephenson (of Sidon)'s effort to be consultation. The demonstrated efforts do not even meet the minimum threshold of discussion. It is important to emphasize that Mr. Stephenson has not communicated with the YKDFN or its consultants. That is unfortunate because exploration and mining companies working in the NWT that have made a genuine effort to consult the YKDFN have been able to do so. We have found members of the Chamber of Mines to be an informed group and generally consultative and encourage Mr. Stephenson to draw on the Chamber's knowledgeable members.

Problems with community engagement were raised again by YKDFN during the prehearing conference held by the Review Board on March 14th, 2007 (Pre-Conference Hearing Notes: PR#90). This was reinforced in a March 28th, 2007 letter from Mr. Greg Empson, legal counsel to YKDFN, who stated that this problem has made it "difficult if not impossible to respond to issues of primary concern to the YKDFN" (PR#111).

YKDFN Elder Alfred Baillargeon expressed his concern over the developer's approach to community engagement, saying (day 1 p130; day 2 p 312):

You said you met with the Yellowknife's First Nations in Dettah. We've never seen you. You've never come to make any presentations in our community... You cannot... call us or send us fax in order to communicate. You have to come, sit down, and talk to us... Gary Bailey of NWT Metis Nation raised a similar concern, regarding the combined consultation efforts of CGV and Sidon¹⁰ (day 2 p130):

For a developer to say you've tried, you've sent us faxes -- yeah, I've seen a few faxes where I've reviewed a bit of your process late in the game. ...(CGV) got twenty-one holes in there without our approval. Nobody asked us yet, we're surprised that that actually has taken place already.

Kara King, President of NWT Metis Nation, voiced concerns regarding the developer's approach to community engagement (day 2 p127):

Consultation has not taken place. We haven't received any correspondence, any phone calls. This is the first time I've actually seen them. They haven't come to the community, and you know, told us anything about their programs...

In a March 8th, 2007 letter in response to the Review Board's request for details regarding community engagement that had occurred since 2004, the developer provided a detailed description of all community engagement efforts (PR#88). Several phone calls were listed, all occurring between August and October of 2006. At this time, the company decided to propose a Memorandum of Understanding with the YKDFN regarding its cooperation in archaeological studies. No agreement was ever reached.

4.3 Board Conclusions on Community Engagement

The Review Board notes that the developer's record of community engagement with potentially affected communities has been disappointing. This developer has heard directly from YKDFN of its capacity issues dealing with the large number of land use applications it receives. The developer has also heard directly from many community members, including Elders, about the cultural importance of this subject area, and of the degree of public concern. The Review Board is of the view that the lesson for a developer to take from the parties' concerns and the Review Board's conclusion in the previous environmental assessment was that community engagement is a very important aspect of proposing any development in this vicinity.

The Review Board is of the view that group faxes and e-mails are no substitute for community visits and meeting with Chief and council. The developer's efforts at community engagement, particularly over the first year following its application, appear to be inadequate.

¹⁰ All consultation efforts by Sidon were combined with and identical to those by CGV, a technically separate but related company (see section four of the Review Board's *Report of Environmental Assessment* for CGV, EA0506-005).

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

The Review Board does not accept the developer's suggestion that the previous environmental assessment hearings in 2003 can serve as community engagement for this application. These hearings did not occur by the developer's choice, and did not address the current application. Experiences by the developer's consultant and representative during previous environmental assessments should have raised Sidon's awareness of the area of importance to the YKDFN, emphasizing the need for meaningful future community engagement.

The developer's March 8th, 2007 letter (PR#88) provided details of community engagement that has occurred since 2004. It confirms that no attempts at community engagement were made for over a year following the initial group fax, and that the efforts that followed were limited to telephone calls and e-mail correspondence.

The developer has asserted that "our efforts and actions speak louder than words", and cited the previous involvement of members of YKDFN as community monitors, and the involvement of Elders in archeological surveys, as indications of its commitment to community engagement and involvement¹¹. The Review Board does not accept this argument. The involvement of Aboriginal people in the work referred to was required by Review Board measures. Accordingly, this does not establish the adequacy of the community engagement policies of the company.

The developer stated at the hearing that "We weren't aware of your concerns and we didn't hear about them until the pre-hearing conference" (day 1, pp33-34). This suggests that Sidon's representatives gained little insight into the issues voiced in the previous environmental assessment¹², or of the issues on the public record in this assessment. Had the developer undertaken more meaningful community engagement, it would have been aware of the concerns.

In the developer's closing statement it stated that the company will adapt its approach as it learns about potentially affected communities (PR#134). First Nations and the Review Board made their concerns regarding community engagement clear in the past, and the YKDFN have raised identical concerns throughout this environmental assessment.

Although the developer's approach appears to have changed in August of 2006, ten months into this environmental assessment after an environmental consulting company was retained, no meetings have resulted. By that time, it is clear that communities felt this was too little and too late, and refused to participate. Although community engagement requires efforts from both the developer and the community, in the view of the Board, in this case the responsibility for the community engagement issues is largely the developer's.

¹¹ The developer's reference was to the experiences of CGV, a technically separate but related company. See 3.3 for details.

¹² This was part of the CGV environmental assessment. However, the same representative was involved in community engagement, and recent CGV and Sidon community engagement efforts were combined and identical.

Measures 1 and 3, required by the Review Board later in this document, provide opportunities for substantive input from Aboriginal parties, in part to address issues noted above (see sections 6.1.3 and 6.3.3 for details).

5 Project-Specific Biophysical Issues

Several biophysical issues were considered during this environmental assessment. The Review Board issued information requests on Oct. 19, 2005 dealing with disposal of drill cuttings, fish and fish habitat, sewage and grey water. The Review Board also advised the developer to give careful consideration to questions posed by the YKDFN including questions concerning impacts on the forest, wildlife, streams, fish, and wetlands (PR#28).

5.1 Developer's Submission

In the developer's Nov. 2, 2006 responses to information requests, it provided information pertaining to drill cuttings, fish habitat, and grey water disposal (PR#53).

Regarding drill cuttings, in response to information request 1.14, the developer stated that all drill cuttings from on-ice drilling will be transported to Yellowknife for approved disposal, and all cuttings from drilling on land will be placed in a natural depression over 30 m from the high water mark of any water body, approved by a INAC land use inspector (p1-4: PR#53).

Regarding fish habitat, in response to information request 1.16, the developer stated that depth estimates to identify sensitive fish habitat will be conducted visually, and a bathymetric survey will be conducted if necessary. The developer committed to drilling only in locations frozen to the bottom or greater than 11m deep to avoid spawning shoals (p3-1: PR#53).

Regarding camp sewage and grey water disposal, in response to information request 1.19, the developer committed to the following if a camp is used (p5-1: PR#53):

- Waste will undergo a minimum of primary treatment to remove all suspended solids and floatable materials;
- There will be no discharge of floating solids, garbage, grease free oil or foam;
- Discharge of the effluent should take place in a diffuse manner to self-contained areas with minimal slope; and,
- All discharges will occur at a minimum of 100 m from any water body.

5.2 Parties' Submissions

Mr. Tom Unka of DKFN raised specific questions during the hearing regarding projectspecific biophysical issues (day 2 p74-76). Unka asked for several particular details pertaining to project-specific biophysical impacts, including details on sediment control, a 3D model of the drill and contact with the lake bottom, a cross-section of underground activities in relation to hydrology of the area, a chemistry profile on all materials, a containment plan, a water monitoring program and a spill contingency plan.

Several parties expressed concerns over impacts on wildlife. For example, the YKDFN letter of Dec 18, 2006 (PR#73) cites numerous concerns over the disturbance of wildlife, and the issue arose frequently during the hearing.

The Department of Fisheries and Oceans (DFO) examined the potential for the development to affect fish and fish habitat. It identified three potential concerns it considered when reviewing the proposed development. These were impacts from winter water withdrawal, drill cuttings, and drilling on spawning shoals.

DFO cited its *Winter Water Withdrawal Protocol* (PR#114) as sufficient to ensure that water withdrawals do not impact fish of fish habitat. It analyzed the developer's proposed method for dealing with drill cuttings and concluded that these are adequate mitigations to protect fish. It also concluded that drilling is not likely to impact fish or fish habitat by physical destruction or by spreading sediment given the mitigations the developer will employ (drilling in ice frozen to the bottom or in depths greater than 11metres) (PR#107). DFO concluded that "the project will not likely impact fish or fish habitat if the mitigation measures proposed are implemented" (PR#116).

Environment Canada identified the following issues in its review of the proposed development (PR#99):

- Transport, storage and disposal of fuel and hazardous material;
- Appropriate sump siting;
- Disposal of drill waste;
- On-ice storage;
- Non-winter activities coinciding with migratory birds;
- Winter ice road decommissioning over land;
- Demobilization of on-site camp; and,
- Species at risk.

Ivy Stone presented on Environment Canada's behalf at the hearing. With respect to the first four of these items above, Environment Canada concluded that the mitigations proposed will mitigate the impacts so that adverse impacts are unlikely. It notes that the development will be carried out in winter when migratory birds are not present. In terms of species at risk, peregrine falcon and rusty blackbird occur in the subject area, but not

during the winter season. Accordingly, Environment Canada does not predict an adverse impact on those species.

Wolverine are a species listed by the Committee on the Status of Endangered Wildlife in Canada, but the GNWT is the lead agency responsible for their protection, so Environment Canada did not address potential impacts on wolverine. No potential impacts on wolverine were identified by the GNWT during its later presentation.

Environment Canada summarized that "based on the information provided... and provided that appropriate planning and mitigation practices are in place, Environment Canada does not foresee any significant environmental effects from these projects" (day 2, p291-295).

The Department of Indian Affairs and Northern Development (INAC) provided a technical review of other project-specific biophysical impacts. It looked at the spill contingency plan, the temporary camp proposed on Moose Bay, camp sewage and greywater disposal, and conflicts with land leases. David Livingstone of INAC emphasized that this project uses drilling methods that are well established and understood. INAC identified no potential adverse impacts that cannot be properly mitigated through land use conditions (day 2 p207-208).

Biologist Dean Cluff of the GNWT Department of Environment and Natural Resources presented his research on moose in the subject area during the hearing. Cluff noted that much of the useful information on moose in the vicinity came from wildlife studies conducted with the YKDFN, involving incorporation of Traditional Knowledge. This occurred during an eleven day workshop organized by the YKDFN as an outcome of the previous environmental assessments of developments in the subject area. The GNWT helped map information provided by the YKDFN, showing seasonal movements and habitat use. The results show the high importance of moose as a traditionally harvested species in the subject area (p256, d2). The GNWT described aerial surveys of moose, and the community moose monitoring program. Other mammals in the subject area include caribou, wolverine, beaver, muskrat, mink, martin, lynx, and otter. Caribou bulls are known to congregate in winter in the vicinity of Zigzag Lake.

The GNWT clarified that most of the information available on moose is baseline information, which may serve as a useful basis for recognizing evaluating future changes. With regard to moose, Cluff stated that "this specific development proposal… will not, in my view, have any adverse impacts, especially if anything is mitigated" (p272, day 2).

Cluff stated that moose will move away from a local disturbance such as noise (see section 6.2.5.1), but that such movements are not likely to cause population level impacts. Cluff identified two potential sources of impacts to moose populations- increased recreational hunting and increased access (pp278-281, day 2). Access issues are discussed further in section 6.3.

5.3 Review Board Conclusions

The Review Board understands the importance of all components of the ecosystem, particularly in a setting where the land and people are closely related through traditional lifestyle. The concerns of Aboriginal communities regarding water, fish, waste and wildlife are understandable. However, it important to note that the proposed development consists of small-scale diamond drilling. In the Review Board's opinion the project-specific biophysical impacts can be effectively mitigated with standard regulatory conditions.

If this were not the case, or if this were a much larger project such as a mine, then the additional types of information requested by DKFN may be needed. On a project specific basis, the aquatic effects monitoring programs or a wildlife effects monitoring programs typically conducted at large mines are usually required to address uncertainty over impact predictions. In this case, the Review Board is satisfied based on the evidence from expert departments that there is no such uncertainty for project specific biophysical impacts.

The Review Board therefore accepts the evidence of Environment Canada, DFO and INAC that this development is not likely to cause project-specific biophysical impacts. (Cumulative impacts and socio-cultural impacts are addressed in section 6.2 of this document)

Regarding the impacts of the development on wildlife populations, there is an important distinction that must be made. The significance of wildlife changes, such as a change in local wildlife movements, in an area used for hunting may have a greater impact on hunters than on wildlife itself. (Section 6.2.4 of this document will further discuss impacts on traditional harvesting). Although several presenters described changes to wildlife as a result of disturbance from past development, and similar concerns related to this development, the Review Board has not heard evidence to suggest that these changes are biologically significant adverse impacts.

The GNWT has submitted that this project in isolation is not likely to affect the moose population or moose demographics. The evidence suggests that the project may affect the movements of moose for a period of time. In the opinion of the Review Board, on a project-specific basis this is not a major enough change to be considered a significant adverse biological impact.

6 Social and Cultural Issues

Many of the issues brought to the attention of the Review Board dealt with social and cultural issues. These could largely be divided into two categories: those dealing with heritage resources and graves, and those dealing with cumulative impacts on traditional practices, along with the potential for cultural changes that may result. Both of these are interrelated and have a bearing on culture.

6.1 Heritage Resources and Graves

In the previous environmental assessments within the subject area, the Review Board heard concerns regarding the protection of heritage resource sites and burial grounds. The parties of the current environmental assessment also described their concerns regarding this subject.

6.1.1 DEVELOPER'S SUBMISSIONS

In the developer's Land Use Permit application (MV2004C0039, p6), the developer described its plan to allow Elders to inspect proposed access routes and drill sites.

All potential drill site areas appear to be located in areas that the First Nations have identified as having no significance to their "trails" and other sites of interest... However as demonstrated in the GSL claim area we will enable First Nation elders to accompany us and inspect the proposed access and drill sites to ensure that no conflict is present.

(The reference to GSL claim refers to activities required by a measure from the 2003 *Report of Environmental Assessment and Reasons for Decision on the Consolidated Goldwin Ventures Diamond Exploration Project* (p59) requiring the developer to be accompanied by an Aboriginal Elder, a translator, if required, and a qualified archaeologist to scout out archaeological, burial and cultural sites at any access routes and drill locations before on-land operations).

In correspondence to the Review Board on Sept. 26, 2005 (PR#12), the developer stated:

There are no indicated or known, or perceived, archaeological sites within 0.5 kilometres of the property boundaries of most of the areas,.

A similar view was repeated in response to information request 1.15, proposed by the GNWT Prince of Wales Northern Heritage Centre (PWNHC) and issued by the Review Board. (p7, Oct 31, 2005: PR#33)

The preamble to an information request proposed by the YKDFN and issued by the Review Board states that, in the opinion of the YKDFN (as expressed in its proposed information request 1.15 submission) (PR#29):

Sidon... suggests there is no culturally important or heritage sites identified in the areas where (it) proposes work. That is not the case as noted by the Prince of Wales Heritage Centre. The developers are asked to respond to the following questions: 1....Respecting the cultural significance of the proposed areas and the associated cultural landscape, are the developers prepared to accommodate *YKDFN* needs regarding the full protection of the area?

2....Are the developers prepared to work with the YKDFN over an extended period of time in order to ensure the resulting cultural landscape continues to reflect the local identity of the place and the residents and represents the regional characteristics of the YKDFN?

In a later response to information request 1.15, the developer appears to dismiss the potential for conflicts with heritage resource sites, stating (p8, PR#42):

To our knowledge none of the confirmed sites are close to any of the immediate areas of interest... No major sites are present that cannot be mitigated... Only three old sites were identified in the vicinity of Jackfish Bay. None are noted in any of the other areas... Contrary to the conclusion of the MVEIRB in the FR and work completed to day by Snowfield Developments, Consolidated Goldwin Ventures and report (2005) completed by Callum Thompson (above) for New Shoshoni, no sites discovered affected or reported by the exploration work or any other work (sic).

In another response to the same information request over one year later, the developer stated it was in the process of retaining an archaeologist to complete an archaeological survey to ensure the potential drill locations are of no archaeological or spiritual significance. The developer attempted to set up a memorandum of understanding with the YKDFN regarding the archaeologist and the participation of the YKDFN in the developer's archaeological studies. Agreement was not reached. (IR Responses, Nov. 2, 2006: PR#53).

In its information request responses of Nov. 2, 2006, the developer stated that it "is prepared to accommodate the YKDFN needs regarding full protection of culturally significant areas" and "is prepared to work with the YKDFN over an extended period of time to ensure the protection of heritage resources" (IR Responses, p2-4, Nov. 2, 2006: PR#53). The same response described the following (p2-1 to 2-2):

Sidon recognizes the cultural, spiritual and historical significance of the area proposed for exploration, and thus the importance of consultation with the First Nations. Therefore Sidon has formally requested consultation with the YKDFN and is attempting to set up a Memorandum of Understanding to begin the consultation process. As well Sidon has hired Rescan Environmental Services to ensure that the First Nations are properly consulted.

In discussions with Rachel Crapeau, Manager of Land and Environment for YKDFN, and YKDFN's consultant, Louis Azzolini, the YKDFN are willing to be consulted if Sidon will enter a Memorandum of Understanding with the YKDFN. To this end Sidon is attempting to set up a Memorandum of Understanding with the YKDFN to begin consultation. Sidon regards meaningful consultation to consist of:

- meetings with Sidon's president of the company and the chiefs and council to discuss Sidon's program, and discuss concerns that the YKDFN have regarding the program, as well as to seek and consider the advice that the YKDFN provide respecting the presence of heritage resources
- site visits with a YKDFN elder to determine adequate drill locations
- working with YKDFN's archaeologist to determine exact drill hole locations
- working with the YKDFN over the life of the Land Use Permit to ensure protection of heritage resources

The same response from the developer (p1-1 to 1-2) indicates an issue of conflict concerning the choice of archaeologist for the above study:

Sidon was informed that the YKDFN want to attain their own archaeologist, as opposed to the company attaining an archaeologist. Therefore, Sidon is attempting to set up a Memorandum of Understanding with the YKDFN to consult with them and work with their archaeologist... However, this process is proving lengthy and timelines are uncertain of when a Memorandum of Understanding will be formed, therefore Sidon would like to attain their own archaeologist to complete a survey as soon as feasible.

During the hearing, Greg McKillop on behalf of the developer stated, concerning heritage resources and the memorandum of understanding:

The companies are very keen to insure that potential drill locations are not in areas of archeological or spiritual significance, and they are proposing that there would be archeological surveys, once there's a better understanding of where the drilling will take place to focus the surveys....

So where do the companies go from here? The companies are committed to working cooperatively with First Nations. They've hired Rescan to assist with their consultation efforts. Last fall Rescan tried to engage the Yellowknives Dene in negotiation of a memorandum of understanding, we weren't successful in completing those negotiations, but there's still an interest in doing that. The company has also indicated that they're willing to have regular meetings with affected First Nations, if the First Nations can nominate representatives that would have perhaps quarterly conference calls or something to that effect to ensure that everybody who is interested has an opportunity to be kept up to date with changes in the program and what has been accomplished and what has proposed in the future.

In terms of recognizing cultural, spiritual and historical significance to the area, the company has proposed an archeological survey, again there were discussions with the Yellowknives Dene last year, they were not brought to successful conclusion, but there's still an intent to move forward with that. Also, the Company is aware of the archeological sites database and keen to take advantage of that and add to it. And, furthermore, the Company is proposing to use adaptive management if additional cultural sites are found through the course of their work.

Yellowknife Hearing, day 1 p33-35

On August 3rd, 2007, the Review Board issued the following information request (IR#2.2) to parties to solicit views on possible mitigation measures pertaining heritage resource surveys. The information request preamble stated that since the developer has not conducted preliminary work to identify drill targets in an area which may have a high density of heritage resources or grave sites, the Review Board has reached the preliminary conclusion that the proposed development could disturb heritage resources, and is considering the following potential mitigation measures:

- requiring that the developer conduct heritage surveys on whole claim blocks before any other work is conducted on the ground; or,
- requiring the developer to conduct some geophysical work on the ground to identify drill locations. Once locations have been identified, the measure would require heritage surveys only on areas surrounding the drill locations before conducting the remainder of the project.

The intent of the potential mitigation is to ensure that the proposed development does not disturb any heritage or burial sites, including those as yet undocumented.

Parties were asked for their views on the feasibility of the potential measures, their capacity to prevent or reduce the impact described, and any other measures that would achieve the same mitigation.

In response, the developer stated that requiring heritage resource surveys on the whole claim block would be expensive and time consuming, and is not warranted. In the developer's view, surveying drill sites only is a reasonable proposition. This survey should include water sources, helicopter landing areas, and camps. The developer stated that this was consistent with its commitments, while increasing knowledge of heritage resource sites in the area (PR#144).

6.1.2 PARTIES' SUBMISSIONS

6.1.2.1 Presence of Heritage Resources and Burial Grounds

The historical use and presence of corresponding heritage resource sites in the subject area was raised by numerous participants. The Review Board has heard that the subject area was the principal location of the YKDFN before moving to the current locations of Dettah and Ndilo. The *YKDFN Land Use Map* submitted to the Review Board indicates many traditional trails, cabins, burial sites and other historical features throughout the subject area within the vicinity of the proposed development. The same map shows that the Sidon mineral claim area includes traditional trails, and is in an area with a traditional place names ("*Ligoh Ti*").

Participants placed particular emphasis on the presence of heritage resources, including grave sites, in the subject area. Many of the locations of grave sites in the subject area are not recorded, and the grave markers are no longer visible. This was expressed in the 2003 CGV hearings (p25; 57-58; 85-86; 132), and reasserted for the proposed Sidon development by YKDFN Elders Alfred Baillargeon (day 1 p130), Judy Charlo (day 1 p135) and Isidore Tsetta (day 1, p124-125). The issue was also raised by Rachel Crapeau of the YKDFN (day 2 p51), Kathleen Dahl of the YKDFN (day 2, p315-316), and Sheryl Grieve of the NSMA (day 2, p136). On the written record, the importance of the subject area and the presence of undocumented gravesites was described by the YKDFN (PR#73), and wilderness guide Scott Robertson (PR#142).

Isidore Tsetta stated the following:

Our people used to harvest a lot of dry meat and at Drybone Bay a lot of people lived in that area. And there is a lot of historical sites all in that Drybone area¹³ and a lot of grave sites. And also Beniah -- all the way up to Beniah Lake there's a lot of our ancestral graveyards in those areas. And so how are you going to do all this exploration with all these -- our ancestors' graveyards?

Yellowknife Hearing, day 1 p124, 125

Correspondence received from the YKDFN on December 18th, 2006 (p10: PR#73), summarizes the results of archaeological studies and emphasizes the high potential for undocumented heritage resource sites, saying:

It seems evident that this entire coastline has been occupied by aboriginal peoples for several hundred and most likely several thousand years, and

¹³ See section 2.2 for a detailed definition of this area.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

continues to be used by Yellowknives Dene and others for hunting, trapping, fishing, recreation and other pursuits...

Steve Ellis of Treaty Eight Tribal Corporation reminded the Review Board of the many statements that have been submitted on the public record in past assessments where First Nations have described the importance of the subject area. Ellis said (day 2 p 13):

I think this Board has heard a lot of testimony in the past during the EAs of Snowfield, North American General Resources, and CGV about the importance of this area to the Akaitcho Dene, specifically the Yellowknives... I think it's abundantly clear that that area is extremely important to their way of life.

Kathleen Dahl of the YDFN expressed the degree of her concern regarding potential impacts to her family burial grounds as follows (day 2 p315-316):

I'm trying to be very calm but emotionally it hurts... If any ways it effects you personally in your growth, in your home, someone comes into your house and destroy your personal spiritual (sites), it is unacceptable and hard to explain. I want to tell the Board consider the amount of Elders we have (here). They want to protect the land just like you want to protect your children and your grandchildren.

Our land will not be destroyed because we have uncles and aunts (whose) grave site is not claimed yet. We don't know most of them where they are How would you feel if you're... beside my grandfather or my aunties and uncles. Would you like to be disturbed? I don't think so.

On this same subject, Rachel Crapeau of the YKDFN told the Review Board (day 1 p127):

(There are) lots of places where there are burial sites, some of them are still not recorded to this day and if there's blasting going to be happening it will seriously affect our archeology and history of the area.

6.1.2.2 Sites with Undocumented Locations

In the 2003 Consolidated Goldwin Ventures environmental assessment hearing the Review Board heard YKDFN community member Angie Lantz, who described the importance of burial grounds as an indicator, and raised concerns over undocumented grave sites (CGV Hearings 2003, p132):

Burial grounds - due to oral history of the Elders, it indicates traditional use of the area. Many of our people have been buried along the shore of Great Slave Lake, particularly at the area of concern or in close proximity. The burial sites are continuing to be recorded from the old history. It is known that there are many unrecorded burial sites in that area.

The PWNHC specifies estimates of the potential for heritage resource sites within the DEF claim block. (PR#35, Nov 02, 2005). It states that "there is moderate to high potential for the presence of unidentified archaeological sites in the area."

At the hearing archaeologist Glen McKay of the PWNHC further discussed the gaps in record of heritage resource sites, relative to the densities of sites that can be reasonably predicted (day 2 p161-165):

... There's a very high potential of finding heritage resources along the shoreline of Great Slave Lake between Wool Bay and Matonabbee Point, yet there are significant gaps in the survey coverage of the shoreline areas between Wool Bay and Matonabbee Point. Thus we expect the uninvestigated areas of the shoreline contain numerous undocumented heritage resources. Even greater gaps exist in the survey coverage of areas inland from the shore of Great Slave Lake. The heritage resource potential of the inland areas is less well defined as the archeological investigations to-date have focused primarily on the shoreline... Overlaying Consolidated Goldwin and Sidon's claim areas on this map, we see that very little archeological survey has taken place in their proposed exploration areas. Survey coverage is limited to several small areas in Jackfish Cove and Moose Bay... The archeologist that conducted this work, in his recommendations submitted to us in his permanent report, indicated that both areas should be examined in greater detail for heritage resources prior to development activities taking place there.

The Board heard evidence regarding the presence of undocumented heritage resource sites inland of the Shoreline Zone. Archaeologist Glen McKay spoke to the presence of inland sites in the area, saying that PWNHC expects that the developer's proposed exploration areas contain undocumented heritage resource sites, but have never been assessed in detail by an archaeologist (day 2 p161-165):

All of the shoreline areas that have been surveyed contained numerous heritage resources... The shoreline and island zones of the exploration areas have very high potential for heritage resources, and thus, the shoreline zones of the exploration areas likely contain undocumented heritage resources. While the heritage resource potential of the inland areas is less well defined, we expect that it is moderate to high.

Regarding lack of agreement on the proposed Memorandum of Understanding, Rachel Crapeau expressed that YKDFN was willing to try to reach agreement with the developer that included use of an archaeologist acceptable to the YKDFN, but is no longer open to such meetings (day 2 p318-319).

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008 The YKDFN have requested that detailed heritage resource studies be conducted prior to further development. In its letter of December 18th, 2006 the YKDFN told the Review Board (PR#73):

Before any more intensive exploration activities are permitted, more extensive, research-oriented surveys with full participation in the planning and implementation by members of the YKDFN should be conducted, and all areas likely to be disturbed by exploration and development should be thoroughly assessed.

The PWNHC recommended more detailed heritage resource studies, with the participation of potentially affected groups, prior to further exploration (day 2p161-165; 169).

6.1.2.3 Undefined Drill Targets

Several parties indicated that the developer's actual drill sites are not yet defined within the claim block, and this compounds concerns over the need to identify heritage resource sites by field work prior to drilling.

At the commencement of the environmental assessment, the Review Board requested more details regarding the locations of each potential drill target (Sept. 15th, 2005; PR#10). The developer's response did not provide the missing detail, but the developer argued that "there is sufficient detail provided previously and now for the YKDFN to identify any areas or near areas of potential conflict. (Sept. 26, 2005: PR#12).

On October 19th, 2005, the Review Board issued an information request requiring details about drill target numbers and locations (PR#29). The developer responded that it could only provide approximate drill locations because the geological and geophysical assessment of the area was not completed, and it did not want to proceed with this work until it was certain it could development approval. (PR#33, p2; PR#53, p1-2). The developer reiterated this at the hearings, stating "Nothing can be done until I know that I can drill at the end of the day" (p47 day 1).

The YKDFN noted during the hearing that no land use permits are required for magnetic surveying, physical inspection of sites, consultation on archaeological surveying, and so forth. This was confirmed by the developer (p47, day 1). YKDFN also noted that the developer chose not to do these activities for financial considerations alone (p47, day 1). Louie Azzolini, on behalf of the YKDFN, characterized this approach saying "...you have an unwillingness to participate or engage with the Yellowknives Dene unless you are first given permission to drill. In other words you want to have that permission before you're willing to engage in any consultation" (p48, day 1).

A similar point was raised by Steve Ellis of Treaty Eight Tribal Corp. (day 2 p10), and by Greg Empson behalf of the YKDFN. Empson emphasized the undefined details of the proposal, called into question the possibility of effective consultation while fundamental aspects of the development are unknown, and told the Review Board that "(*i*)t would be extremely difficult for us to even suggest that (the development) should proceed in the absence of any information as to what they intend on doing, other than drilling some holes" (day 2 p253).

In information request 2.2, the Review Board asked parties for views on potential mitigation measures. The information request included the following:

The developer has not conducted preliminary work to identify drill targets in an area which may have a high density of heritage sites or grave sites. The Review Board has reached the preliminary conclusion that the proposed development could disturb heritage sites. The Review Board has not yet concluded that this impact can be mitigated, but is considering recommending the following potential mitigation measures:

- requiring that the developer conduct heritage surveys on whole claim blocks before any other work is conducted on the ground; or,
- requiring the developer to conduct some geophysical work on the ground to identify drill locations. Once locations have been identified, the measure would require heritage surveys only on areas surrounding the drill locations before conducting the remainder of the project.

In response, the YKDFN stated that it would prefer the refusal of the proposed project. However, with respect to the potential mitigation put forth by the Review Board, the YKDFN stated that it preferred the requirement for an assessment of heritage resources throughout each whole claim block (PR#138).

The NSMA response to the same information request agreed that there is a significant risk to heritage resources if drilling were to occur in areas where heritage surveys have not been conducted, but did not indicate any preference for either of the potential measures (PR#141).

INAC's response to supplementary information requests emphasized cost of surveying the whole claim block, and described the minimal potential for impacts from non-intrusive geophysical work (PR#140).

The GNWT provided the following response to IR 2.2 (PR#139), with regard to the first potential measure proposed by the Review Board: Although the first potential measure would generate significant baseline data for a larger area, it would be costly and lengthy, and would still likely result in some areas receiving more study than others based on archaeological potential.

Regarding the second potential measure proposed by the Review Board, the GNWT stated the following in the same response (PR#139):

The benefit of the second measure - heritage surveys of defined drill sites is that the archaeologist hired by the proponent can focus in detail on smaller areas, thus limiting the HRIA (Heritage Resource Impact Assessment) while providing a high degree of certainty that the exploration program will not result in adverse impacts to heritage resources.

The drawback is the risk – minimal if the geophysical work is limited to foot surveys, rock sampling, etc. – that heritage resources could be impacted during identification of the drill locations...(B)oth measures have benefits and drawbacks. The best approach for minimizing the risk of impacts to heritage resources is a detailed inspection of the exact footprints of the exploration project prior to the commencement of development activities.

6.1.3 REVIEW BOARD CONCLUSIONS

The Review Board accepts that the area surrounding the proposed development is historically important to the Aboriginal peoples that have used it. The evidence on the record from Traditional Knowledge holders makes this clear. It is further supported by the informed expert judgment of the PWNHC based on evidence from field studies. This was made clear by evidence on the public record including testimony at the environmental assessment hearings for this development, as well as by the evidence from the public record pertaining to the same area from previous applications in the subject area. This includes archaeological sites spanning from pre-contact times to more recent heritage resource sites of historical relevance to Aboriginal peoples.

The archaeological assessments that have been conducted in the subject area were largely related to previous environmental assessments in the area. The Board notes with interest that prior to these studies very few heritage resource sites were documented in the subject area, and that the few studies that have occurred have revealed approximately one hundred and forty sites since the time of those previous assessments. This corresponds with the TK evidence presented. The suspected presence of many heritage resource sites in general, and burial grounds in particular, is considered by the Review Board to be culturally important. Most of the subject area has never undergone archaeological assessment.

Based on this evidence, the Review Board accepts that the density of heritage resource sites is "very high" along the shoreline zone between Wool Bay and Mattonabee Point, and is "moderate to high" (based on the characterization by archaeologists) for sites further inland in the area of the proposed development. There have never been heritage resource assessments for the area of the claim where the drill targets are proposed. Based on the expected density of heritage resource sites, the Review Board concludes that the likelihood of encountering heritage resource sites in the Sidon claim block is moderate to high.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008 The Review Board notes that the archaeologist that completed the previous studies in the area recommended in his report to the PWNHC heritage study that the area "should be examined in greater detail for heritage resources prior to development activities taking place there" The PWNHC recommended that the area should be examined in greater detail for heritage resources prior to development activities taking place (p163, day 2). The PWNHC also recommended that "the developers undertake a detailed heritage resource impact assessment of their exploration areas, including drill sites, access routes, and any other area where ground disturbance will take place prior to exploration activities" (p165, day 2).

Of particular importance in the view of the Review Board is the suspected presence of numerous burial grounds at undocumented locations. The YKDFN have indicated that many of these are unmarked, their wooden crosses and cribbing destroyed by wildlife, the elements, and time. Although other heritage resources have cultural importance, the Review Board recognizes that burial grounds have a spiritual significance that is particularly important. In the *Report of Environmental Assessment and Reasons for Decision on the New Shoshoni Ventures Preliminary Diamond Exploration in Drybones Bay* the Review Board concluded (Report of EA03-004, p52):

Any activity conducted in the vicinity of burial grounds could have significant adverse impact on the social and cultural environment. The effect of the development is not physical but represents a diminished value of sacred sites because the burial sites are viewed as sacred.

This conclusion remains the same. Burial grounds are viewed as sacred areas, and any possible risk of their disturbance must be avoided. Because many graves are unmarked, there is a greater risk of disturbing such a site than there is for a heritage resource with markings on the surface, and the spiritual aspect of this disturbance would result in a cultural impact of the highest significance.

The Review Board accepts, based on the testimony of TK holders and supported by other experts, that just as the few locations within the subject area already investigated proved to have numerous sites, there is reason to believe that there are heritage resource sites in the Sidon claim block. These sites are hard to recognize, because of the materials in question and the YKDFN's practices of using all parts of animals, leaving few remains (p35, day 1). It is evident to the Review Board that haphazard drilling presents a real risk of disturbance of heritage resource sites. These sites could be damaged by this project from direct damage by drilling, from compaction due to access to the drill site, and from disturbance by poor disposal of drill cuttings.

The Review Board is of the opinion that the Traditional Knowledge brought to heritage studies by the participation of YKDFN Elders is an important part of heritage studies in the area. For this reason, past measures pertaining to the subject area specified that both Elders (with translators) and archaeologists must be involved.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008 In the Review Board's process, the onus is on the developer to convince the Review Board that it will not cause significant adverse impacts. The developer has stated that it will "work with the YKDFN over an extended period of time to ensure protection of heritage resources" (PR#53, p4-4), conduct archaeological studies to identify heritage resources near its drill targets (day 1 p27), and conduct site visits with Elders (day 1, p27; LUP Application MV20040039, p6). The developer plans to mitigate potential impacts to heritage resources using site-specific studies conducted on site with Elders with the cooperation of the YKDFN. These actions show movement in the direction required to help mitigate potential project-specific impacts on heritage resources. However, little further detail regarding these commitments appears on the public record.

Considering the high levels of historical use of the subject area and its known cultural importance, the Review Board is of the view that a higher level of rigour and caution is required here than the developer has undertaken. The developer has decided for financial reasons not to conduct the ground work that would enable the Board and parties to know the specific locations of drill targets within the claim block. The higher cost of planning work in a culturally sensitive area is no reason for inadequate preparation for the project. The Review Board notes that since the developer cannot identify where in its claim block it plans to drill, and the severity of disturbing a heritage resource such as an undocumented burial ground is high, a precautionary approach is warranted.

The Review Board has considered requiring heritage assessments of the whole claim block to compensate for the lack of detail resulting from inadequate preliminary work by the developer. However, the expert views of the PWNHC indicate that there are serious drawbacks to requiring the developer to assess the whole claim block. The PWNHC has stated that conducting more focused studies in the vicinity of potential drill targets is the best approach for minimizing the risk of impacts on heritage resource sites. In terms of project-specific (non-cumulative) impacts, the Review Board accepts this view.

The GNWT has described the best approach for minimizing the risk of impacts to heritage resources as being "... a detailed inspection of the exact footprints of the exploration project prior to the commencement of development activities". This includes the access routes and drilling support facilitates such as the camps. The Review Board notes this expanded consideration of potential impacts on heritage resources.

The YKDFN has described problems with archaeologists that have been appointed by developers failing to document heritage resource sites during heritage resource studies (p52, day2). No agreement was reached on the Memorandum of Understanding that was to provide details regarding the archaeologist and heritage study. The evidence on the record shows that the YKDFN does not accept the heritage studies proposed by the developer to be conducted by an archaeologist of the developer's choosing (PR#53, p2-2). At present, there is no assurance that the archaeologist involved in the heritage studies by the developer is acceptable to the YKDFN.

The Review Board notes the lack of agreement on the Memorandum of Understanding pertaining to the heritage study, and the shortcomings of the developer's community engagement efforts (see section 4). In the opinion of the Review Board, in order for a heritage resource study to mitigate a portion of the cultural concerns, it must be credible in the eyes of YKDFN, because the YKDFN is a group most likely to be affected. It is therefore important that the archaeologist involved is acceptable to the YKDFN. Without this, the mitigation measure will not be effective in addressing the relevant concerns.

Even though the developer has not conducted appropriate preliminary studies to identify drill targets, the Review Board notes that the scale of the project is relevant when considering project-specific potential impacts on heritage resource sites. The direct physical footprint of the proposed project is small. Potential project-specific impacts on heritage resource sites posed by this project are much smaller than the potential cumulative impacts to which it may contribute (see section 6.2.5.2). These potential project-specific impacts can be adequately dealt with by site-specific heritage studies, provided that these studies involve the YKDFN Elders and are conducted with an archaeologist acceptable to the YKDFN. This is in general accordance with existing commitments by the developer. However, the measure below provides necessary clarity and detail to ensure that this mitigation is adequate to prevent significant adverse cultural impacts from disturbance of heritage resources:

Measure #1: Sidon must identify drill sites by conducting non-intrusive geophysical activities which do not require a land use permit. Once drill sites are identified, Sidon must be accompanied by an Aboriginal Elder, translator and a qualified archaeologist to scout out archaeological, burial and cultural sites on any access routes and drill locations before on-land operations at any drill location proceeds. The archaeologist involved must be acceptable to the PWNHC following consultation with YKDFN.

In the interest of following a cautious approach in an area that is likely to contain heritage resource sites, other developers working in the subject area have been required to stay a minimum of 100 metres away from known or suspected heritage resources. The same approach is necessary in this case to prevent the otherwise likely significant adverse impacts on heritage resources.

Measure #2: No part of the proposed development will occur within 100 metres from any known or suspected archaeological, burial or cultural site.

For clarity, 'cultural sites' includes sacred sites. Further findings regarding cumulative impacts on culture with respect to heritage resource sites are discussed in section 6.2.5.2.

6.2 Effects on Traditional Land Use and Culture

Many of the issues identified on the public record and at the hearing dealt with the potential of this development to add to existing development pressures in an area important to traditional land use, and the cultural impacts that result from the cumulative effect. This section outlines the Review Board's requirements regarding the assessment of cumulative impacts. It describes the evidence on record regarding the regional context and other activities in the subject area, and the combined impacts of the proposed development and these other activities on traditional activities. This section also examines related issues pertaining to access.

6.2.1 BOARD EXPECTATIONS AND CONSIDERATIONS ON CUMULATIVE IMPACT ASSESSMENT

The Review Board considers cumulative effects assessment to be an important aspect of Environmental Assessment. Section 117(2)(a) of the MVRMA specifies that every environmental assessment "shall include a consideration of... any cumulative impact that is likely to result from the development in combination with other developments". The Review Board explains the importance of conducting good cumulative effects in the Review Board's 2004 *Environmental Impact Assessment Guidelines* (Appendix H) as follows:

... (T)he Board will pay attention to the cumulative effects of a development and other human activities in deciding whether or under what conditions to approve the development. To evaluate the contribution of a development to a larger impact, it is necessary to take a big picture view. Cumulative effects assessment is the way that this is done in EIA.

The Guidelines also state:

The cumulative effects assessment should include all other human activities that may substantially affect the valued components... These should include past, present and reasonably foreseeable development, as long as they have the potential to affect the same components as the proposed development.

The evidence on the public record, including testimony from the environmental assessment hearing, describes concerns related to the cumulative effects of the proposed development in combination with the effects of other past, present and reasonably foreseeable human activities.

6.2.2 DEVELOPMENT IN THE REGIONAL CONTEXT

With respect to cumulative impacts from development in the surrounding area, the Review Board heard concerns that the YKDFN are affected by impacts of other developments which collectively impact the quality of the other areas surrounding Dettah and Ndilo. Hearing participants stated that these other areas are no longer of the same value to the YKDFN for traditional harvesting, resulting in the development area becoming more important as the last remaining area that is good for traditional harvesting within accessible distance of YKDFN communities.

In a previous *Report of Environmental Assessment* on Consolidated Goldwin Ventures, dealing with a different development within the subject area, the Review Board noted concerns regarding the impacts of other developments that affect the YKDFN. The Review Board concluded that "the message was unequivocal, the YKDFN were bearing the burden of the environmental and therefore cultural costs of development in and around Yellowknife" (Report of Environmental Assessment on CGV 2004, p65). This continues to be an issue in the present environmental assessment, as summarized by the letter of April 18, 2007, in which the YKDFN describe the area as "one of the few remaining significant areas of land that has been traditionally used by the Weledeh people" (PR#129).

Many hearing participants emphasized to the Review Board that various developments and activities cumulatively diminish the value of areas that were traditionally important for subsistence harvesting in the past. YKDFN members described the diminished value of other areas due to Con and Giant mines and their past impacts, including health impacts from arsenic (p138 day1), impacts on fishing areas (p116, day 1; p123, day 1; p125, day 1), impacts on water quality (p125, day 1; p72, day2). YKDFN members cited impacts from other developments including the Ekati and Diavik diamond mines (p117 day1), and reduced success in caribou harvesting in other areas (p116 day 1; p58, day2).

In response Dec. 18, 2006 to an information request issued by the Review Board, the YKDFN wrote that poor caribou hunts in other areas increase the importance of the development area as a source of traditional food (PR#73, p2):

The subject area is a functioning ecosystem that the YKDFN have relied on for food for as long as people can remember. Now, with poor caribou hunts, dependence on the area for its bountiful harvest has increased in importance. Any impact on the area will affect its wildlife and very directly the well-being of the YKDFN.

Traditional harvester Jimmy Beaulieu described to the Review Board how the cumulative degradation of YKDFN harvesting areas has increased the importance of the subject area as follows (day 1 p116, 117):

The fishing, and the trout, there used to be a lot of people setting nets, and now ever since the Giant and Con have established, and those things have moved on to a different place. Now it takes longer for us to go hunting for -- for caribou. But the most important thing is -- to me is that -- that Drybones Bay area and also Moose Bay and Wolf Bay and also the background.

Several other hearing participants described how great the cumulative impacts of other developments have been in other areas that were once of much greater value for traditional harvesting. These include Elder Isidore Tsetta, who described the diminished value of harvesting areas around Con and Giant mines (day 1, p123 and 125) and Rachel Crapeau who described impacts on caribou hunting from the Contwoyto-Tibbett Winter Road (day 2, p58).

6.2.3 OTHER ACTIVITIES WITHIN THE SUBJECT AREA

Three main types of human activities are specified by the evidence. These are 1) other mineral development activity, 2) recreational access, and 3) accidents and malfunctions. This section will briefly review the material on the public record on each of these.

The area of the proposed development has been subjected to both historic and contemporary mineral exploration. The most recent trends in mineral exploration have been spurred on by the discovery and development of diamond resources in the Northwest Territories. The Drybones Bay area has also been affected by this phenomenon and judging by the number of mineral claims staked and Land Use Permits applied for, it can be assumed that the area continues to be of interest to the mining and mineral exploration industries.

On April 13th, 2007, as an undertaking from the hearing, INAC submitted a map illustrating land use permits, water licenses, surface leases, mineral claims and mineral leases in the area. It illustrates the following¹⁴:

Snowfield Development Corp. has been conducting mineral exploration (diamond drilling) at a number of locations in the general vicinity of Drybones Bay including at the Mud Lake Claim Group (6 km southeast of Drybones Bay), Hurcomb Claim (12km south of Drybones Bay), the Red Claims Group (9 km east of Drybones Bay), the Fate Claim (16 km Northeast of Drybones Bay), the GTen 16 Claim Group (20 km east-northeast of Drybones Bay) and the Wire Claims. This development has involved construction of work camps (the Pebble Beach camp and the bulk sample camp) and the construction of an all weather tote road inland from the shore of Great Slave Lake (at the Pebble Beach Camp) to the bulk sampling site. The permitted equipment includes a John Deere 450D Dozer/Backhoe, Nodwell multi-purpose tracked vehicle, TD-20 Caterpillar, Caterpillar

¹⁴ Some details of the past programs by Consolidated Goldwin Ventures and North American General Resources Corp. were collected from material on the programs as proposed from the Review Board's public records. Actual activities on land may have slightly varied from the projects as proposed.

33CC Excavator, Cessna 185/DHC3, Single Otter, snow machines, all terrain vehicles, electrical generators, water pumps and trucks. Four hectares of land have been cleared, and a trenching and bulk sampling program has been developed at the Mud Lake site (Fig. 4). This project also includes the establishment of an ice road from Yellowknife to facilitate access to the Mud Lake site, and the use of helicopter to facilitate drilling at remote sites. Snowfield's Land Use Permit expires on May 19, 2010.

In the period between the hearings for the development Sidon and the time of drafting this report, Snowfield has been required by a Land Use Inspector to apply to the MVLWB for a new Class B water license (MV2007L2-0027) to pump up to 300,000 litres of drainage and seepage water out of its site. An unexpected volume of water is currently entering the site, and the company's present land use permit does not allow it to legally pump it out.

North American General Resource Corp. was granted a Land Use Permit to conduct mineral exploration (diamond drilling) in the vicinity of Wool Bay. The proposed program was to be supported from Yellowknife with crews commuting daily by 4x4 pick-up truck to the work area via an ice road to Wool Bay. The company proposed ploughing a 300 to 400 metre long road spur from the main ice road to access the Wool Bay work area. The company did not conduct the work, and the Land Use Permit expired in May 19, 2007.



Photo by Scott Stewart, INAC. Used w. permission

Figure 4: Current activity at Snowfield Resources advanced bulk sample site near Drybones Bay. (Note dump truck at upper right for scale).

Consolidated Goldwin Ventures was granted a Land Use Permit to conduct mineral exploration (diamond drilling) in the vicinity of Drybones Bay and Matonabee Point. Two drilling areas were located on Great Slave Lake approximately 500–1,500 metres from the main shoreline of the lake. The other area was on the land roughly 0.5 kilometres north of Hearne Channel and 2.0 kilometres west of Beaulieu River. Like the exploration program of North American General Resources, the proposed program was supported by daily access to the drill areas by ice road from Yellowknife. Shoreline access occurred at the Hearne Channel drill location. This program used a Longyear 38 portable drilling unit. The Land Use Permit expired in March 31, 2006. Consolidated Goldwin Ventures has applied to drill in an additional nine different mineral claims in the subject area.

Garnet Resources Ltd. was granted a Land Use Permit to conduct mineral exploration (diamond drilling) in the vicinity of Matonabee Point. The scope of work includes the construction of an 8-km ice road spur to permit access between Yellowknife and the work site. The Land Use Permit expires on March 22, 2008.

Diamonds North Resources was granted a Land Use Permit to conduct mineral exploration (diamond drilling) in the vicinity of Drybones Bay. Access to the drill sites was accomplished with helicopters. The Land Use Permit expired on March 17, 2005.

In addition to the above developments, the map (PR#128) shows 12 surface leases, five mineral leases, and 54 mineral claims in the general vicinity of the development.

Much of the activity in the area is not related to industrial development, but to access. Several parties voiced concern regarding recreational use of the area by non-Aboriginal residents of the nearby City of Yellowknife. This includes recreational snowmobiles, cabin construction, and recreation hunters (e.g. p58, day 1; p80, day 1; p56-57 day 2; PR#73, p8).

Because recreational snowmobile use does not require any permit outside of municipal boundaries, it is not monitored or regulated. The public record indicates that many recreational snowmobile users use the trails in the area. (See below for related testimonials). Constable Daryl Foster of Yellowknife Municipal Enforcement Division confirms almost 1800 registered snowmobiles within the city of Yellowknife, and estimates an equal number of unlicensed snowmobiles used in the surrounding areas outside of city limits (PR#136).

With additional activity comes an increased likelihood of accidents and malfunctions, such as spills or fires, with impacts on the environment. Minor fuel spills have been noted in Land Use Inspection reports. A detailed example of a more serious accident was provided by INAC at the hearing in response to questions from YKDFN members (day 2, p222). Additional information was submitted in writing on April 5, 2007 (PR#115). A six-by-six plow truck excavator and a 16 wheel lowboy and pony being transported to area for the Snowfield development broke through the ice road. It was carrying approximately 900 litres of fuel and 160 litres of hydraulic fluid. It sunk into over 24m of depth, and the decision was made that it was environmentally better to not attempt recovery. Numerous concerns regarding this incident were raised by YKDFN members at the hearing (eg. day 1, p129).

6.2.4 EFFECTS ON TRADITIONAL ACTIVITIES

Parties described several traditional harvesting activities that occur in the subject area. These include hunting (for moose, ducks, and caribou), fishing, trapping, berry picking, and gathering of medicinal plants. The habitat of the area is excellent for wildlife, and a network of historical traditional trails interconnects the area (p7, PR#73). Inland areas are also used for several harvesting activities, including trapping wolves and lynx, moose and caribou hunting (p3).

Several participants spoke to the subject of the cumulative impacts of the proposed development in combination disturbances from numerous other sources and their potential to disrupt traditional harvesting.

The developer produced little material on the subject, and Mr. Greg Mckillop summarized the developer's position saying "*The program is short-term and very local. It's questionable whether there'd be any impacts on hunters and trappers causing them to move*" (p81 day 1).

Several parties to the environmental assessment did not agree with the developer, and raised issues regarding the potential for the proposed development to contribute to the growing level of disturbance in the area. Rachel Crapeau of YKDFN described the following concern about increasing levels of development and affects on hunters:

(B)ecause of how things have been developing over the last ten years we've noticed that the migration of the moose, the migration of the caribou, the animals that use the lands have moved significantly away from our areas because of too much activity. And... in our caribou hunting, the wintering grounds is changing quite a bit.

Yellowknife Hearing day 2 p 56

Other hearing participants told the Review Board of the changes to wildlife locations because of increasing human activity. Mr. Gary Bailey of NWT Metis Nation described a concern over the response of wildlife to sensory disturbance, saying "The animals change. They move because of the noises, noise pollution" (day 1 p83). In its response to Review Board Information requests, YKDFN noted in its Dec. 19, 2006 letter that moose are already being affected by disturbance from low flying air traffic related to mineral exploration (p7). The changes in activity levels in the area and resulting effects on traditional harvesters were raised by Tom Unka of DKFN (day 2 p 70).

6.2.5 REVIEW BOARD FINDINGS AND CONCLUSIONS

The Review Board accepts that the area surrounding the proposed development is culturally significant to the Aboriginal peoples that have historically used, and continue to use the land. The importance of this area is demonstrated in part by the archaeological, historical, and current use of the area. The record indicates that it has been an important area to the people of YKDFN and their ancestors since historic times, and that it continues to be important to the people of YKDFN, DKFN, NSMA, and NWT Metis Nation. This evidence was not contested by the developer.

The Review Board considers the assessment of social and cultural impacts to be an important aspect of environmental assessment¹⁵. In the past, this developer has heard directly from YKDFN of its capacity issues dealing with the large number of land use applications it receives. This was made sufficiently clear during previous CGV hearings that the Review Board explicitly addressed it in the *Report of Environmental Assessment* for that development. The developer has also heard directly from many community members, including Elders, of the high cultural importance of this area, and of the degree of concern. Even so, there is little evidence to indicate that the developer gave due consideration to socio-cultural issues.

6.2.5.1 Impacts on Traditional Activities

The Review Board has heard ample evidence from many parties, including Elders, Aboriginal organizations and the developer, that the culture of Aboriginal peoples is linked to traditional practices. The Review Board has also heard that the area around the development was used historically, and continues to be used for traditional purposes.

The YKDFN have made it clear that the cumulative effect of other developments in other areas that were once valued areas for hunting, fishing and other harvesting have diminished the value of these places. This includes the areas of Con and Giant mines, the location of the City of Yellowknife and the surrounding areas used recreationally by its residents. In the words of YKDFN Chiefs Peter Liske and Fred Sangris, this has resulted in the area becoming "one of the few remaining areas that has been used traditionally by the Weledeh people" (PR#129).

The diminished value of the areas of these other developments has increased the importance of the area of this proposed development. With fewer alternatives, this area is accessible to the community and continues to be ecologically rich in species important to traditional harvesters. It is apparent to the Review Board that the YKDFN is concerned about the increasing levels of activity within the area, both from the mineral industry and from recreational access by snowmobilers and hunters from nearby Yellowknife¹⁶.

The Review Board heard about other cultural impacts that do not relate strictly to heritage resource sites. These deal with disturbance to traditional activities. These impacts are cumulative because they relate to the combined effect of the proposed development in combination with all other human activities, including reasonably foreseeable future developments, to cause a potential impact on the cultural value of the landscape throughout the area.

¹⁵ Sections s.115(b) and 115.1 require consideration of social and cultural matters, and consideration of cultural impacts.

¹⁶ See section 6.3 for more details about issues pertaining to access.

The Review Board accepts the evidence of the GNWT that the activities associated with this development will not directly cause an impact on wildlife population numbers (see Section 5.3). The Board notes that disturbance can affect wildlife behaviour, location and movements without necessarily reducing the population. A change resulting from such disturbance may not constitute a significant impact on wildlife, but the resulting changes in wildlife distribution may cause a significant effect on people if it reduces harvesting success in areas that are used for traditional harvesting.

The YKDFN and other Aboriginal land users have clearly asserted that the cumulative disturbance from activity has caused some changes in the wildlife in the subject area. This was stated by Elders as holders of TK and by other current Aboriginal users of the land. This is partially from industrial disturbances and partially from disturbances related to access (discussed in section 6.3). The GNWT has stated that changes in access have the potential to affect populations of moose, an important traditionally harvested species in the area (p273 day 2). The Yellowknives state that this has diminished the hunting success on land formerly known to be reliable, requiring hunters to travel further for the same hunting success (e.g. p56, day2). It is apparent to the Review Board that despite current activity, the area still is valued for hunting, trapping and fishing. The YKDFN have clearly described to the Review Board their concerns that as development incrementally increases, the value of the area for wildlife will decrease, and so will the value of the area for the traditional practices that depend on wildlife. The YKDFN have stated that this will result in less practice of traditional ways of life, and reduced opportunities for transmission of YKDFN culture to future generations.¹⁷

6.2.5.2 Cumulative Context

The people of YKDFN have made it clear to the Review Board that their concerns do not deal with the proposed development in isolation, but with the development in the greater context of the subject area. The evidence before the Review Board indicates that this landscape is being cumulatively affected by many different human activities, the impacts of which will be added to by the proposed development.

The Review Board has assessed five mineral developments in the same subject area. One of these is the Snowfield bulk sample, which has cleared several hectares, put an all-weather tote road into an area previously without all weather roads, built camps, cut lines in the bush, cleared helicopter landing sites, and run a heli-portable drill to inaccessible sites. Several thousand tons of overburden have been removed. Diamond drilling has occurred at several sites. Several kilometres of geophysical cut lines have been made. An accident related to the Snowfield development resulted in the sinking of heavy machinery, fuel and industrial lubricants into Great Slave Lake. There are a total of 54 different

¹⁷ See the Review Board's *Report of Environmental Assessment and Reasons for Decision, Consolidated Goldwin Ventures Inc. Mineral Exploration Program, EA0506-005* for a more detailed description of these concerns, described based on evidence that is shared with this environmental assessment.

mineral claims in the area, and the *Canada Mining Regulations* legally require certain activities at every claim. All of this requires considerable air traffic, both by fixed-wing aircraft and helicopters. Large numbers of snowmachines from Yellowknife use the access created into the area for recreational snowmobiling, and Great Slave Snowmobile Association has marked routes along trails for its members (see section 6.3). The new access has led to unauthorized cabins and increased pressures from recreational hunters. In the opinion of the Review Board, when viewed collectively, this is a lot of activity for a culturally important area.

The Review Board has considered relevant trends in the subject area. Levels of industrial activity are increasing. It is reasonable to assume, considering the growth of the population of the City Yellowknife¹⁸ and the observed increases in new access described on the public record, that pressures in the area from recreational use are also increasing. This is supported by the testimony of Aboriginal land users based on their first-hand experience (eg. p57 day 2).

The Review Board has heard from INAC that the current levels of industrial activity are still not high. However, the context must be duly considered:

- 1) Access issues in the area are increasing;
- 2) The area is home to unidentified heritage resource sites including grave sites;
- 3) It is one of the few remaining easily accessible areas where the YKDFN practice traditional pursuits; and,
- 4) The area is without the protection of a land use plan.

Consideration of all these relevant facts reveals that the increasing levels of activity compound to form part of a potentially harmful cumulative trend in an area that is important to the YKDFN.

More development activity and recreational use are reasonably foreseeable in the subject area. Increased recreational access by Yellowknife residents can be reasonably inferred from the growth of the city. Certain activities on the ground are required at the many mineral claims in the area. Air traffic will likely be involved in this. Snowfield Development Corp. has recently applied for a new water license for activities within the area.

¹⁸ The population of Yellowknife is steadily growing; its population increased 11.5% between 2001 and 2006 (from 16,541 to 18,700 persons) (Statistics Canada, 2006). As the population increases, it can be assumed that the lands surrounding Yellowknife will face more recreational users.

6.2.6 GENERAL CONCLUSIONS ON CULTURAL IMPACTS

Based on this, the Review Board finds the following:¹⁹

- 1. The subject area is important to Aboriginal land users. It contains heritage resource sites, and it is likely that there are undocumented heritage resource sites. (See sections 6.1.2 and 6.2.5.1)
- 2. Changes on the land, from a combination of increasing recreational access and increasing development, including the proposed development, are adversely affecting traditional activities. (See section 6.2.5.1)
- 3. This is causing cumulative impacts on cultural practices of Aboriginal groups that use the land. (See section 6.2.5.1)

Based on the evidence on the record, the testimony of parties and the above considerations, the Review Board is of the view that cultural impacts are being caused by incrementally increasing development in this important area, including the proposed development. The Review Board is of the opinion that these cumulative cultural impacts are at a critical threshold. If this threshold were surpassed, it would result in a significantly diminished cultural value of this particular area to Aboriginal peoples. This would be an unacceptable cultural cumulative impact on Aboriginal land users. Most of these cumulative cultural impacts arise due to a combination of development activities and recreational access within the subject area.

In the Review Board's view, the largest potential contribution from the proposed Sidon development comes not from the three drill holes, but from the proposed access road from the shore of Great Slave Lake inland to Defeat Lake. This is dealt with in section 6.3 of this report. For this reason, no measures are prescribed here.

6.3 Access Issues

The subject of access is raised several times throughout the public record. It pertains to the winter road the developer proposes to construct from Great Slave Lake inland to Defeat Lake²⁰, the developer's proposed use of existing trails for snowmobile travel and for using a tractor to haul drill rigs, and the potential for increasing recreational access from the nearby City of Yellowknife.

¹⁹ See the Review Board's *Report of Environmental Assessment and Reasons for Decision, Consolidated Goldwin Ventures Inc. Mineral Exploration Program, EA0506-005* for a more detailed analysis of these concerns.

²⁰ See Figure 1, section 2.2.

Sidon International Minerals Corp. Exploration Program Mackenzie Valley Environmental Impact Review Board Report of Environmental Assessment, February 2008

6.3.1 DEVELOPER'S SUBMISSIONS

In the developer's land use application (p7, MV2004C0039: PR#6), it described the possibility of using a winter road to haul trailors to the drill sites. The application proposes using a tractor to haul the drill rig to the drill sites (p2). In addition, Laurence Stephenson, on behalf of the developer, told the Review Board that the developer would likely use snowmobiles on existing trails or helicopter between a proposed camp in Moose Bay and the drill sites, and helicopter for the claims further inland (day 1 p50; 52).

The idea would be to probably set up a camp down on Moose Lake or -- or around the Moose Claims area... From that point there, basically you could service all of these claims by Skidoo or helicopter. (p50)

We could put a small trail or - or haul the drill along with a road access; that - that's the type of access that we're looking at. (p52)

The possibility of using a helicopter was raised by Laurence Stephenson on behalf of the developer (p50-52, day 1; p71, day 1; p105, day 1; p303, day 2). In the developer's correspondence of Sept. 26, 2005 (PR#12), it stated that "helicopter would be the most reasonable and likely means of ingress and egress". This was restated in the hearing (day 1 p52)

What we would try to do is probably use a helicopter to move our drill in to each of these (inland) sites depending on where we find -- I think that would be probably the easiest.

In response to questions regarding the feasibility of helicopter operations at sites with challenging topography inland, Greg McKillop told the Review Board (day 1, p125-126):

I've worked with helicopters and drills in very rugged terrain, and we've slung drill equipment in with hundred foot cables and you can get in some very tight terrain moving equipment in by helicopter.

6.3.2 PARTIES' SUBMISSIONS

Rachel Crapeau described YKDFN concerns regarding the effects of access, including recreational snowmobile riders from the City of Yellowknife and the further development in the area that access facilitates. Crapeau said (day 2 p57):

All this activity has a huge effect on our ability to travel in the backyard through -- just behind Dettah and you follow the trails, you can't even really go that way any more because of all the Yellowknife snowmobilers heading that way.

If you sit outside my sister Julia's house on her balcony on Thursday, you'll see them heading out that way. It's not just one snowmobiler, it's four at a time. And there's probably about fifty to a hundred snowmobilers heading out on Thursdays. They all plan long weekends and they spend quite a time out on our land and they head way out...

And the trails, opening it up to other people from other companies going in and using the land and accessing the land and it's one company after the next. They're all making noise in the Dettah area. The cumulative effect is going to be pretty huge.

In its response to information requests from the Review Board, YKDFN response on Dec. 18, 2006 describing concerns regarding the cumulative impacts of improved access (p2 and 8, PR#73). It wrote:

...there is even increasing pressure by non-Dene Yellowknife residents for the use of the area because of its vicinity, attractiveness, and abundance of wildlife (p2)... Improved winter road access to the area will open up new lands, and this is an added impact. Then there are associated impacts. Outfitters will add small camps because there is a winter road. "The open door effect" that will result in increased traffic that results in increased garbage, noise and general nuisances. Impacts that were not there before the ice winter road.

If the road cannot be controlled there will be an impact including additional cabin construction. Cabin construction that is unmanaged and uncontrolled. The Snowmobile association is marking trails and opening the land up to more and more people and this is also causing an impact. Trails are being overtaken by other users. (p8)

Following a description of concerns regarding changed access and impacts to harvesting, Gary Bailey of the NWT Metis Nation described the significance of traditional trails (day 1 p79):

Our trap lines and stuff have been developed over time; three hundred, four hundred years. Took a long time for our Elders to find these routes and you guys are using them as public roads and ruining our -- what we've invested in our land.

Elder Isidore Tsetta described his concern regarding the use of traditional dog team trails by exploration companies. He said (as translated by Rachel Crapeau) (p127, day 1):

All the traditional dog team trails, the trails to all the harvesting areas, they're all being taken over by anyone who wants to go drilling and -- and

using the land, and they're using our trails and messing up our trails that we use.

Patrick Charlo, a traditional harvester and member of YKDFN, described concerns about the creation of new access, the impacts of access created recently in the area, the impacts on traditional harvesting (including direct interference with traps), and the safety of his children on traditional trails (day 1 p58).

I'm teaching my grandkids how to live on the land and when you guys say you are going to put in winter roads, its almost like splashing water on my back. The same thing happened in Drybones Bay. CAT (bulldozer) trails all over the place. What does that create? That creates open roads for recreational riders. Those trails which have been opened up to everybody, that's our traditional trails which has been taught to the younger generation, to generations, where we are here today.

And we travel (those trails), we set traps and they are being snapped or either trap taken, fur and the whole works. Who's going to replace those traps? Who's going to cover the costs for the fuel that you spend going out there and also to replace the traps.

I had a close incident. I was up ahead. My son was behind me. He was only eight years old. And we get these recreational riders, like I said, it just opens up trails for everybody. Regardless of who is on a trail with them or not, they'll -- snowmobiles were coming, six of them. Before I even got to stop the first one, I couldn't, it just flew right by me. And I was just worried about my son, he's a little ways behind me. So since then, I started traveling further south along the Great Slave.

YKDFN Elder Isidore Tsetta stated his views regarding increased access into the area and the development it could facilitate, saying "(W)e absolutely don't want any roads made into those areas. That road is going to contaminate the land and then establish different base camps" (day 1 p124).

Gary Bailey identified the ice road from Yellowknife to the area as a source of increased recreational access. Bailey said: "The ice roads as well, it causes all recreational hunters coming out" (day 1 p80).

Dean Cluff, North Slave Regional Biologist for the GNWT, raised the subject of access and recreational activity in describing potential impacts on moose. Cluff said (day 2 p273):

There was mention before of recreational activity and there... would be a concern from a population point of view for moose... (A)ny increase in access could affect that so that would be a concern. So if there's more

winter roads in an area... or the landscape is opening up more then that can have an effect on moose populations.

Patrick Charlo suggested that helicopter operations could mitigate the problem of increased access (day 1 p59).

It wouldn't be too bad if they were to fly in drillings and so on where they can make a pad here and there, but if you start opening up ice roads, that creates a big impact on everybody that -- that works on the land.

During a previous environmental assessment within the subject area, the YKDFN voiced concerns regarding increased access via the ice road and on trails, the potential of this to facilitate the building of unauthorized cabins, and the potential for access to open the area to further development in the area, and for increased recreational hunting (EA 0304-02-PR#6, PR#300; CGV Report of Environmental Assessment, p55).

On August 3rd, 2007, the Review Board issued an information request (IR#2.1) to parties to solicit views on a possible mitigation measures allowing access by helicopter only, to ensure that the developer does not create new ground access which would contribute to the existing impacts caused by increasing access in the Shoreline Zone²¹. The Review Board asked parties for their views on the feasibility of the potential measure, the capacity of the measure to prevent or reduce the impact described, and any other measures that would achieve the same mitigation.

In response, the developer stated that this would severely constrain the program due to the short flying hours during winter. This would prevent crew changes every 12 hours, requiring crews to stay on site 24 hours between transfers. This raises safety issues due to lack of sleep. The developer suggested that a camp on site would eliminate this problem, making helicopter access only a possibility (PR#144).

The YKDFN stated, in response to the same information request, that it would prefer the refusal of the proposed project. However, with respect to the potential mitigation put forth by the Review Board, the YKDFN stated the following (PR#138):

The YKDFN concurs with the Review Board that increased access for recreational travelers, and the cumulative effects associated with increased access are a significant and growing concern. Historically, exploration projects have increased non-Dene access to areas of significance for YKDFN and there has been little or no acknowledgement of this fact. Therefore, the Review Board's recommendation that exploration drilling site access be limited to helicopter usage only is viewed favourably....

²¹ Although it extends inland to Defeat Lake, the proposed winter road begins in and traverses the Shoreline Zone.

The YKDFN continue in the same response to state:

Allowing the use of helicopters only to access exploration sites will, in the YKDFN opinion, only marginally reduce accessibility associated impacts. The issue is now so prevalent and wide spread that critical disturbance thresholds may have been reached.

The NSMA response to the same information request agreed that this measure would prevent increased access, but noted that helicopter overflights are also disruptive, and that monitoring and enforcement of overflights is difficult (PR#141).

In INAC's response to supplementary information requests (PR#145), it said:

INAC would like to inform the MVEIRB, the developer and all reviewers that the winter road proposed by the developer will be on public land, and that the general public has a right of access to all public roads and lands, unless restricted by law. Therefore, in INAC's view, the developer does not have the legal authority to restrict public access to the winter road it is proposing to build on public lands.

The GNWT Department of Environment and Natural resources provided the following response to IR 2.1 (PR#139):

Given that there are other proposed heliportable mineral exploration projects in the NWT; it is conceivable that a heliportable program would be feasible. By restricting Sidon and Goldwyn to heliportable drilling only, this would help in maintaining the current recreational use of the area. However, a winter heliportable drilling program for the operations would likely cause temporary disturbance to terrestrial wildlife species such as barren ground caribou, moose and furbearers that might utilize the region... Both a new winter road, as proposed by the proponent, and helicopter access only, will negatively impact wildlife and therefore disturb traditional harvesting activities. The difference is, by only allowing access by helicopter impacts would be reduced to short-term impacts as opposed to a new road that could provide increased access indefinitely.

6.3.3 CONCLUSIONS ON IMPACTS RELATED TO INCREASED ACCESS

Recreational access to this area is one of the activities partially responsible for the cumulative impacts described above in section 6.2.5.2. The Review Board has heard from Elders and other current Aboriginal users of the land that wildlife in the subject area has changed because of the cumulative disturbance from increasing human activities. Although increasing industrial disturbances is part of the cause, disturbances related to access are also part of this problem. As described above, the GNWT has stated that

changes in access have the potential to affect populations of moose, an important traditionally harvested species in the subject area (p273 day 2). The Yellowknives state that hunters have to travel further for the same hunting success because increased activity has diminished the hunting success on land formerly known to be reliable (e.g. p56, day2).

The proposed development includes the construction of a new winter road inland, and other inland access from Great Slave Lake. It includes hauling a drill rig by tractor on existing and new trails. Building a new winter road and cutting new trails creates access that will likely be used by others. Hauling a drill rig by tractor down an existing trail likely expands the trail, making it possible for others to use in ways that were not possible before. In the opinion of the Review Board, this development as proposed will incrementally add to the cumulative impacts on culture resulting from both increasing industrial activity and recreational access in the area. This impact is likely, significant and adverse. As stated in section 6.2.6, the Review Board is of the view that this cumulative cultural impact is currently at the threshold of acceptability.

If the developer does not create ground access from Great Slave Lake to drill sites, several potential cultural impacts that relate to this cumulative problem will be reduced. Traditional trails will be less likely to be used to haul drilling equipment, land users are less likely to encounter linear industrial disturbance, and most importantly, no new access will be created by the developer that could facilitate access by recreational snowmobile enthusiasts and hunters.

The Review Board recognizes that increased helicopter use does increase the level of disturbance in the area somewhat. However, it accepts the views of YKDFN harvester Patrick Charlo and of the GNWT that this temporary disturbance is preferable to the longer-term potential impact of increased access produced by the winter road and other means of ingress proposed by the developer. As INAC stated, use of a winter road by others could not be legally controlled by the developer once it was built. Based on a review of the evidence pertaining to concerns arising from increased access, the Review Board is of the opinion that temporary disturbance from helicopter overflights are preferable to increased access to the area over the longer term.

The developer has indicated the feasibility of using helicopter-based operations for inland drill sites, provided that camps could be located nearby to facilitate crew changes during winter months, when flying time is limited by short daylight hours. To prevent these camps from causing additional cultural impacts, it is necessary for the YKDFN to work with the developer to select preferred locations.

Measure #3: To prevent impacts on traditional harvesting resulting from increased access to the area, the developer shall access any proposed drill areas by helicopter only, so that no new access from Great Slave Lake is created. Small camps near drill sites may be created to facilitate access by helicopter. Travel by snowmobile from the camps to the nearby drill sites will be the only exception to the requirement for helicopter access. These camps will be located inland of the Shoreline Zone, in the

vicinity of drill sites, at locations selected by the YKDFN in consultation with the developer.

If no agreement between the YKDFN and the developer can be reached regarding the locations of these camps within one year of Ministerial acceptance of this report, the decision on camp locations will be made by the Mackenzie Valley Land and Water Board, following its consideration of the views of the developer, the YKDFN and the Land Use Inspector.

7 Conclusions

Throughout this environmental assessment, the Review Board collected and evaluated evidence from the developer, Aboriginal land users, Traditional Knowledge holders, and technical experts from government and communities. The evidence led the Review Board to the conclusion that the development, as proposed, would be likely to cause significant adverse impacts. These are primarily cultural impacts, and include but are not limited to impacts on heritage resource sites. This proposed development in combination with all other past, present and reasonably foreseeable future activities in the subject area would also cause cumulative impacts on the culture of Aboriginal land users. These potential impacts are caused mainly due to the location of the development in a culturally important setting, not due to the scale of activity proposed.

The Review Board has prescribed three measures directed at the developer and others. These measures are intended to be taken as a suite. Collectively, these measures will avoid or reduce the otherwise significant impacts that would have occurred.

8 Summary of Measures

Measure #1: (section 6.1.3)

Sidon must identify drill sites by conducting non-intrusive geophysical activities which do not require a land use permit. Once drill sites are identified, Sidon must be accompanied by an Aboriginal Elder, translator and a qualified archaeologist to scout out archaeological, burial and cultural sites on any access routes and drill locations before on-land operations at any drill location proceeds. The archaeologist involved must be acceptable to the PWNHC following consultation with YKDFN.

Measure #2: (section 6.1.3)

No part of the proposed development will occur within 100 metres from any known or suspected archaeological, burial or cultural site.

Measure #3: (section 6.3.3)

To prevent impacts on traditional harvesting resulting from increased access to the area, the developer shall access any proposed drill areas by helicopter only, so that no new access from Great Slave Lake is created. Small camps near drill sites may be created to facilitate access by helicopter. Travel by snowmobile from the camps to the nearby drill sites will be the only exception to the requirement for helicopter access. These camps will be located inland of the Shoreline Zone, in the vicinity of drill sites, at locations selected by the YKDFN in consultation with the developer.

If no agreement between the YKDFN and the developer can be reached regarding the locations of these camps within one year of Ministerial acceptance of this report, the decision on camp locations will be made by the Mackenzie Valley Land and Water Board, following its consideration of the views of the developer, the YKDFN and the Land Use Inspector.

Appendix: Public Record Index

Registry Item No.	Document Name	Originator
1	Notification, distribution list, other start-up materials	MVEIRB
2	Sidon Reason for Decision s126	MVEIRB
3	Response to Notification	Sidon
4	Distribution list return form	MVEIRB
5	Letter from MVLWB re. land use permit applications in	MVLWB
	Drybones Bay area	
6	Sidon 05 Distribution Fax List Sept 14 05	MVEIRB
6	Distribution list confirmation return fax	MVEIRB
7	Newspaper Notice of EA for Sidon 05	MVEIRB
8	Letter to Sidon requesting development details	MVEIRB
9	Note to file - Conversation with Laurence Stephenson	MVEIRB
10	Note to file - Conversation with Laurence Stephenson	MVEIRB
11	Sidon response Sept 26 05, Maps	Sidon
12	Project description questions sent to Sidon	MVEIRB
13	Sidon EA Workplan	MVEIRB
14	Form for Self-Identification of EA Roles	MVEIRB
15	Email with Sidon EA workplan sent to parties	MVEIRB
16	Letter to distribution list soliciting Information Requests	MVEIRB
17	Email to Rae Edzo Metis Nation re: party standing	MVEIRB
18	Note to file - L. Napier - Rae Edzo Metis Nation	MVEIRB
19	Email to Rachel Crapeau re. response to call for IRs	MVEIRB
20	Sidon 05 Party identification	MVEIRB
20	Sidon 05 Party identification	MVEIRB
21	Email with maps of proposed Sidon project resent to S. Ellis	MVEIRB
22	Information Request from DFO re Sidon 05	DFO
22	DFO Proposed IR Sidon05	DFO
23	RE: Call for IRs EA0506-005	DFO
24	DIAND proposed IRs Sidon 05	INAC
25	GNWT proposed IRs Sidon05	GNWT
26	Email re. plotting of proposed drill sites on Google Earth file	MVEIRB
27	YKDFN IR request letter	YKDFN
28	YKDFN Proposed IRs	YKDFN
29	Covering Letter- Sidon IRs and hearing date	MVEIRB
30	Sidon Information requests	MVEIRB
31	Sidon Hearing Announcement- CBC Radio	MVEIRB
32	Party Standing Letter	MVEIRB
33	Request for Assistance for the YKDFN	YKDFN
34	Information request response of Sidon	Sidon
35	Responses to Both Sidon and CGW IRs	Sidon
36	Covering Note to GNWT IR response. RTF	GNWT
37	GNWT IR response Sidon05	GNWT
38	YKDFN IR letter Nov 3	YKDFN
39	INAC Response to Sidon IR	INAC
40	Sidon Adjournment Announcement	MVEIRB
41	Re: Adjournment of Consolidated Goldwin Hearing	Sidon
42	Sidon Hearing Adjournment RFD Nov 9	MVEIRB

43	GNWT Response to YKDFN Req	GNWT
44	SIRC: GNWT Response to IR 1.2	Sidon
45	Sidon IR Response Feb 1 2006	Sidon
46	Sept 2004 Sidon MVLWB Application	Sidon
47	Letter to Sidon re. Feb 1, 2006 resubmission of IR responses	MVEIRB
48	Letter from MVEIRB to Sidon regarding EA status	MVEIRB
49	Response from MVEIRB to Sidon investor's emails	MVEIRB
50	Response by Sidon re. EA status	L. Stephenson
51	Notification of continued EA participation for Sidon	MVEIRB
52	Note to File - August 11, 2006 Sidon and Sidon	MVEIRB
53	Letter to YKDFN about oustanding IRs	MVEIRB
54	EA0506-005 Letter to YKDFN about Information responses	MVEIRB
55	Note to File on Sidon and Sidon - Meeting with YKDFN	MVEIRB
56	Email regarding Sidon and Consolidated Goldwin IRs	Rescan
57	IR response from Sidon	Rescan
58	EA0506-005 Notice of Distribution for email and fax about IRs	MVEIRB
59	EA0506-005 and 006 -Letter to YKDFN concerning IR responses	MVEIRB
60	Note to File - Conversation with Abby Farrange	MVEIRB
61	Note to File - L.Azzolini regarding Sidon and Sidon	MVEIRB
62	MV2004C0038 Staff Report August 2005.doc	MVLWB
63	MV04C38 Draft Land Use Permit Conditions Aug 2005.doc	MVLWB
64	MV2004C0038 Comment Summary Table August 2005.doc	MVLWB
65	MV2004C0038 Preliminary Screening August 2005.doc	MVLWB
66	MV04C38 INAC Shoreline zone clarification.pdf	MVLWB
67	Email from Mike Palmer, INAC regarding Sidon and Sidon IRs	INAC
68	Article in News North concerning Sidon EA	NNSL
69	November 28, 2006 Note to File - Joe Acorn	MVEIRB
70	Revised Sidon Workplan - November 30, 2006	MVEIRB
71	Cover letter to Draft Revised Sidon Work Plan	MVEIRB
72	Letter to Joe Acorn regarding Sidon and Sidon IRs	MVEIRB
73	Letter to Gavin More - update on IRs	MVEIRB
74	Letter to INAC requesting update on Sidon and Sidon EAs	MVEIRB
75	Addendum to correspondence on revised work plans for EA0506-005 (CGV) and EA0506-006 (Sidon)	MVEIRB
76	EA0506-005 Notice from GNWT regarding IR update	GNWT
77	RE: Addendum to correspondence on revised work plans for EA0506-005 (Sidon) and EA0506-006 (Sidon)	GNWT
78	Letter from YKDFN comments on work plan	YKDFN
79	IR response by YKDFN	YKDFN
80	Letter from MVEIRB concerning request for ruling	MVEIRB
81	INAC to MVERIB regarding Sidon and Sidon request for ruling	INAC
82	Email from YKDFN regarding its request for ruling	YKDFN
83	Letter to Rescan regarding IR response clarifications	MVEIRB
84	Letter from MVEIRB to J. Acorn regarding potential workshop	MVEIRB
85	Letter announcing Deninu Kue is a party to EAs	MVEIRB
86	DKFN Request for Party Status	DKFN
87	Letter notifying change of dates for Sidon hearings	MVEIRB
88	Letter to Rachel Crapeau regarding Workshop	MVEIRB

89	EA0506-005 MVEIRB Ruling on YKDFN RFR	MVEIRB
90	EA0506-005 YKDFN to MVEIR including past EA records	YKDFN
91	EA0506-005 and EA0506-006 Pre-hearing confirmation.pdf	MVEIRB
92	EA0506-005 MVEIRB to YKDFN regarding IR Workshop	MVEIRB
93	Note to File: Rachel Crapeau re: IR Workshop	MVEIRB
94	Pre-hearing agenda for Sidon and Sidon	MVEIRB
95	Prehearing Conference Guide for Sidon and Sidon	MVEIRB
96	EA0506-005 Letter from Sidon Chairman	Sidon
97	Sidon - History of Amendments	MVLWB
98	EA0506-005 Consultation log from Sidon	Sidon
99	Note to File - Conversation with Brian Sundberg	MVEIRB
100	Pre-Hearing Conference Notes	MVEIRB
101	Email from INAC regarding Sundberg Lease	INAC
102	Email from Scott Robertson	Scott Robertson
103	Note of correction regarding Pre-Hearing Conference Notes	G. Bailey
104	March 19, 2007 email from Scott Robertson	Scott Robertson
105	Request for Ruling Package	MVEIRB
106	RE: DFO participation at hearings	DFO
107	Invitation letter for Pre-Hearing Conference	MVEIRB
108	Letter from MVEIRB to Rescan re. presentation by interpreter	MVEIRB
109	EC confirms presentation at hearing	Env. Canada
110	Notification about combined hearing and agenda	MVEIRB
111	Presentation by PWNHC for Public Hearings	PWNHC
112	Hearing presentation summary - Treaty 8 Tribal Corp	Treaty 8 Tribal Corp.
113	1-page summary by PWNHC	PWNHC
114	1-page summary sheet from EC	Env. Canada
115	EC Public Hearing Presentation	Env. Canada
116	INAC hearing presentation and summary	INAC
117	INAC update on Information Request 1.8	INAC
118	One page summary by NSMA	NSMA
119	Sidon and Sidon hearing presentation summary	Sidon and Sidon
120	Sidon and Sidon Hearing Presentation	Sidon & Sidon
121	CVs of Sidon and Sidon representatives	Sidon and Sidon
122	DFO hearing presentation on Sidon and Sidon	DFO
123	DFO presentation summary	DFO
124	Treaty 8 Tribal Corp. Hearing Presentation	Treaty 8 Tribal
		Corp.
125	Presentation Summary by Northwest Territory Metis Nation	NTWMN
126	DKFN Hearing Presentation	DKFN
127	Summary of Yellowknives Dene Hearing Presentation	YKDFN
128	Letter from Mary Rose Sundberg	Mary Rose Sundberg
129	Moose Survey Study by ENR	GNWT-ENR
130	Note from GNWT-ENR regarding	GNWT-ENR
131	DFO Presentation - Sidon and Sidon EA0506-005 and 006 (2007-04-04).pdf	DFO
132	EA0506-005 DFO post-hearing submissions	DFO
132		INAC
	EA0506-005 INAC post-hearing submissions	
134	Sidon Presentation April 3 07	Sidon
135	EA0506-005 NSMA hearing presentation	
136	EA0506-005 ENR hearing presentation	GNWT-ENR

137	Opening remarks by Chair	MVEIRB
138	Closing comments by Chair	MVEIRB
139	EA0506-005 Hearing Sign-up lists	MVEIRB
140	INAC public hearing presentation	INAC
141	Audio recording of public hearings	MVEIRB
142	Notification of incorporation of YKDFN requested material to public record	MVEIRB
143	YKDFN requested files for public registry	MVEIRB
144	Speaking points from NTMN public hearing presentation	NWTMN
145	Undertaking by INAC - map and land tenure information	INAC
146	Letter from YKDFN Chiefs	YKDFN
147	MVEIRB letter regarding YKDFN TK Map	MVEIRB
148	Notification of public record closing	MVEIRB
149	April 23 letter from YKDFN to MVEIRB	YKDFN
150	April 23, 2006 Note to File - Conversation with Glen MacKay	MVEIRB
151	Sidon CGV closing comments	Sidon
152	INAC- No Objections to TK Conf	INAC
153	Note to file- Re: Snowmobiles in YK	MVEIRB
154	Robertson Letter- Sidon May 3 05	Scott Robertson
155a	Cultural Landscape Guidelines	PWNHC
155b	Sidon Supplementary IRs	MVEIRB
156	Developers Response to Supplementary IRs	Sidon
157	YKDFN response to Supplementary IRs	YKDFN
158	GNWT response to Supplementary Information Request	ENR, GNWT
159	North Slave Metis Alliance response to Supplementary IRs	NSMA
160	Environment Canada response to Supplementary IRs	Env. Canada,
161	INAC response to Supplementary Information Requests	INAC
162	INAC Comments on IR Responses	INAC