# Tiktaliik Gold Corp, Whale Project, Nunavut SPILL CONTINGENCY PLAN

Nunavut Water Board JUL 13 2012 2 Pb Public Registry

Tiktaliik Gold Corp. 555 Maniece Avenue Peterborough, Ontario K9J 6X9

Tel: (705) 201-1178

Cell: (705) 750-5568

Email:jamieson16@gmail.com

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### 1.0 Introduction

The Tiktaliik Gold Corp. Spill Contingency Plan shall be in effect as of June 2012. This Spill Contingency Plan encompasses its present Whale project, which is in the process of becoming an active remote site in Canada. This Spill Contingency Plan will be posted at operational remote sites.

Tiktaliik Gold Corp. endeavors to take every reasonable precaution toward ensuring the protection and conservation of the natural environment, the safety and health of Tiktaliik employees and contractors and (protecting) the community (at large) from any harmful effects of its materials and operations.

At the present time there is no plan for any helicopter or gasoline fuel caches. There is also no expection of any gasoline powered equipment, beyond the possibility of a small personal generator. Access will be via float plane or helicopter

### 2.0 Facilities

This Spill Contingency Plan has been prepared specifically for the Whale Project. Currently no camp is in place, with operations planned for 2012 restricted to limited small mobile camping at Fat Lake or no camping. The Fat lake location would be at the old Borealis camp site located at 62<sup>0</sup> 07' 13" N and 93<sup>0</sup> 51' 40"W, located approximately 70 km west of Whale Cove. The camp would consist of 2 to 5 sleep tents for a period of one to three days maximum, during late July, early August.

### 3.0 Responding to Failures and Spills

### 3.1 Spill Response Contact List

Toll Free 24 Hour Spill Line NWT & NU 1-867-920-8130

INAC Water Resources Inspector Iqaluit, NU (867) 975-4644....24 hr pager (867) 766-3737

Department of Environment, Government of Nunavut (867) 975-7748

Kivalliq Inuit Association, Lands Department (867) 645-5734

Tiktaliik Gold Corp.

Pamela Strand, President Cell: 1-416-576-5566 (24 hours)
David Jamieson, Vice-President Cell: 1-705-750-5568 (24 hours)

### Other contacts for spill response

Environmental Protection Enforcement Officer (867)-975-4644

Government of Nunavut Department of Environment (867) 975-5910

Nunavut Water Board (867) 360-6338

Fisheries and Oceans Canada, Habitat Impact Biologist (867)-979-8007

### 3.2 Basic Steps — Spill Procedure

In the case of any spill or other environmental emergency, it is necessary to react in the most immediate, safe, and environmentally responsible manner. No spill or incident is so minor that it can be ignored.

# ALL SPILLS MUST BE REPORTED AS PER THE GOVERNMENT OF NUNAVUT'S SPILL REPORTING GUIDELINES.

The basic steps of the response plan are as follows:

- 1. *Ensure* the safety of all persons at all times.
- 2. <u>Identify</u> and find the spill substance and its source, and, if possible, stop the process or shut off the source.
- 3. <u>Immediately Inform</u> the immediate supervisor or his/her designate at once, so that he/she may take appropriated action. (Appropriate action includes the notification of a government official, if required, Spill Report forms are included at the back of this plan.
- 4. <u>Contain</u> the spill or environmental hazard, as per its nature, and as per the advice of the INAC Water Resources Inspector as required.
- 5. <u>Implement</u> any necessary cleanup or remedial action.

### 3.3 Reporting

- 1. <u>Immediately</u> notify Tiktaliik Gold Corp. Spills will be reported to the 24-Hour Spill Line at 1-866-920-8130, the INAC Water Resources Officer in Nunavut at (867) 975-4295 and Environment Canada personnel at 867-766-3737 immediately.
- 2. <u>A Spill Report Form</u> is filled out as completely as possible before or after contacting the 24 Hour Spill Line.
- 3. Other members of the team are notified as deemed necessary.

### 4.0 Responding to the Spill

- 1. First steps to take when a spill occurs:
  - Ensure your own safety and that of others around you, beginning with those nearest to the scene.
  - Control danger to human life, if necessary.
  - Identify the source of the spill.
  - Notify your supervisor.
  - Assess whether or not the spill can be readily stopped.
  - Contain or stop the spill at the source, if possible, by following these actions:

If filling is in progress, STOP AT ONCE.

Close or shut off valves.

Place plastic sheeting at the foot of the tank, barrel, or piece of equipment to prevent seepage into the ground or runoff of fuel Use absorbent materials (sheets, pads, booms) to absorb and contain the fuel spill.

#### 2. Next steps to take:

- Determine status of the spill event.
- If necessary, pump fuel from a damaged and/or leaking tank or drum into a refuge container.
- Notify the 24-hour Spill Report Line, and receive further instructions from the appropriate contact agencies
- Complete the NWT-Nunavut spill report form legibly (electronically preferred) and Fax a copy of the Spill Report Form (867-873-6924)
- Notify permitting authorities.
- If possible, resume cleanup and containment.

### 4.1 Fuel Spills on Land

"Land" may be defined as soil, gravel, sand, rock, and vegetation. Any contaminated material will be shipped from site to an appropriate and approved facility. The Government of Nunavut Department of

Environment monitors the movement of hazardous waste through a tracking document known as a waste manifest. A waste manifest will accompany all shipments of hazardous waste form the Whale Project.

### **Procedure for Spills on Rock**

For hydrocarbon spills on rock outcrops, boulder fields, etc.:

- 1) First responder or his designate obtains plastic tarp(s) and absorbent sheeting on-site.
- 2) A berm of peat, native soil or snow is constructed down slope of the seepage or spill.
- 3) The tarp is placed in such a way that the fuel can pool for collection and removal (e.g. at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums for sealing and disposal.
- 4) Absorbent sheeting is placed on the rock to soak up spilled oil, fuel, etc.
- 5) Multi Sorb (crushed lava rock) can be used to scrub the rock surface.
- 6) Saturated material is disposed of in an empty drum, which is then labeled and sealed. Alternatively, the pads may be wrung out into the empty drum(s), the drums marked and then secured for eventual disposal.

### **Procedure for Spills on Land**

- 1) First responder or his designate obtains plastic tarp(s), absorbent sheeting, Multi Sorb or other ultra-dry absorbent and any other necessary spill containment equipment, pump, hoses, etc.
- 2) A berm of peat, native soil or snow is constructed down slope of the seepage or spill.
- 3) The tarp is placed in such a way that the fuel can pool for collection and removal (e.g. at the foot of the berm). If there is a large volume of spilled product, pump the liquid into spare empty drums, and if practical this fuel will be re used as heating fuel.
- 4) Petroleum-product sheen on vegetation may be controlled by applying a thin dusting of Multi Sorb or other ultra-dry absorbent to the groundcover.
- 5) Contact the 24-Hour Spill Line, and agencies listed in Section 3.1.

### 4.2 Fuel Spills on or into Water

# ALL SPILLS MUST BE REPORTED AS PER THE GOVERNMENT OF NUNAVUT'S SPILL REPORTING GUIDELINES.

It is important to immediately limit the extent of the spill. The following is the procedure to be implemented when an incident occurs:

- 1) If the spill is small, deploy hydrophobic (water repellent) absorbent pads on the water. Hydrophobic pads readily absorb hydrocarbons. Alternatively, an ultra-dry absorbent designed for use on water-based spills may be deployed.
- 2) If the spill is larger, ready several empty drums to act as refuge containers for the spill.
- Deploy *containment* booms on the water surface to "fence in" the spill area gradually and to prevent it from spreading. Keep in mind those environmental factors such as high winds and wave action can adversely affect attempts at spill cleanup.
- 4) Absorbent booms can then be deployed to encircle and then absorb any hydrocarbon spillage that may have escaped the *containment* boom.
- 5) Once a boom has been secured, a skimmer may be brought on-scene to aid in capture of the hydrocarbon; once captured, the product should be pumped to the empty fuel drums and held for disposal.

### 4.3 Fuel spills on Snow and Ice

By its nature, snow is an absorbent, and fuel spilled on snow is collected with relative ease, either by shovel, in the case of small-range spills, and by loader, in the case of more extensive spills.

### **Procedure for Spills on Snow**

- Assess the nature of the spill. Necessary equipment might include shovels, plastic tarp(s), empty drums, and wheeled equipment.
- 2) Shovel or scrape contaminated snow and deposit in empty refuge drums. If the spill is more extensive, use spill containment berms or compacted snow berms with plastic over top, around the affected area.

### **Procedure for Spills on Ice**

Spills on ice are handled in similar fashion as those on snow. However, as ice presents the added danger of immediate access to water, care

must be taken to respond quickly to such spills. Should fuel seep or flow through cracks or breaks in the ice, despite all precautions, assistance should be sought immediately.

- 1) Construct a compacted-snow berm around the edge of the spill area.
- 2) Although hard ice will retard or prevent fuel entry to the receiving waters below, all contaminated snow and ice, as well as objects embedded in the ice (such as gravel or frozen absorbent pads) must be scraped from the ice surface and disposed of in an appropriated manner.
- 3) Contact the 24-Hour Spill Line. Receive additional disposal instructions (e.g. sealing in drums, burn off, etc.) from the appropriate contact agencies listed in *Section 3.1*.

### 4.4 Procedure for Chemical Spills

- 1) Assess the hazard of the spilled material. REFER TO THE MSDS SHEETS NOW. Members of the emergency response team who might be susceptible in certain situations, (such as asthmatics, where fumes or airborne particles are evident), should be replaced with alternates.
- 2) Assemble the necessary safety equipment before response (e.g. latex or other protective gloves, goggles, or safety glasses, masks or breathers, etc.)
- 3) Apply absorbents to soak up liquids.
- 4) Place plastic sheeting over solid chemicals, such as dusts and powders, to prevent their disbursement by wind or investigation by birds or other mammals.
- 5) Neutralize acids or caustics. Place spilled material and contaminated cleanup supplies in an empty refuge drum and seal for disposal.
- 6) Contact the 24-Hour Spill Line. Receive additional instructions on disposal methods and designated locations from the appropriate contact agencies listed in Section 3.1.

#### 4.5 Procedure for Loss of External Load

The loss of external loads of fuel, oil, or chemicals from aircraft almost certainly results in complete and catastrophic failure of the container that once held the product. Immediate response is imperative.

- 1) Mark the loss target with GPS coordinates and relay to camp or base ASAP. Include quantity and type of load loss.
- 2) Base or camp will contact 24-Hour Spill Line, and receive additional direction and instruction.
- 3) Administer the appropriate procedure for Spills on Land, Water, Snow, or Ice.

### 5.0 Spill Equipment

Complete spill kits, oil absorbent kits, are to be made available wherever camps or other operations are underway. Spill kits contain Multi Sorb, crushed lava rock, hydrophobic absorbent matting, goggles, plastic sheeting, protective gloves, shovel, garbage bags, and empty drum.

### 6.0 Training and Practice Drills

### **Training**

At this point, only the officers of Tiktaliik Gold Corp. will be involved in field work. As the project develops, plans will be put in place to form a Response Team familiar with the spill response resources at hand, this Contingency Plan, and appropriate spill response methods. Involvement of other employees may be required, from time to time.

This familiarity will be acquired through:

- 1) Initial or refresher training, as appropriate, provided once per season.
- 2) Regular inventory updates are provided in list form to all team members. Information to be reported includes listing of all resources, number of items, their location, condition, date of last inspection and any special comments (such as expiry dates, under whose authority they may be accessed and special handling instructions).

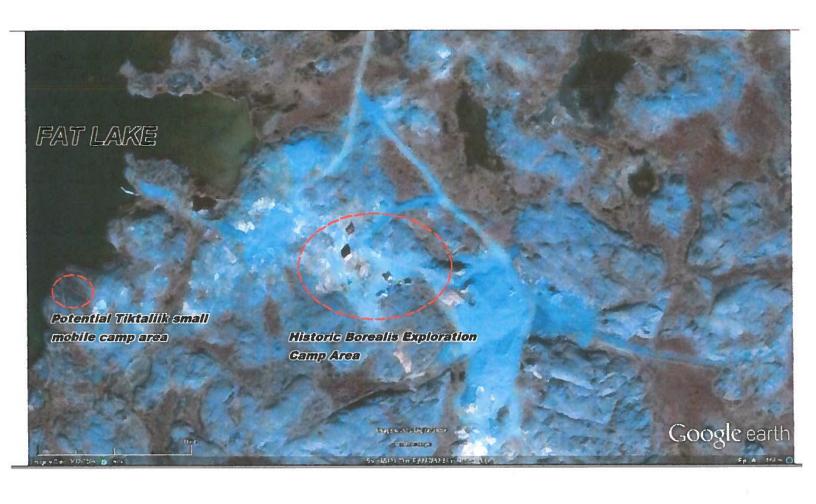
#### **Practice Drills**

Tiktaliik Gold Corp. is aware that without practice, no Contingency Plan has value.

Once the Whale project becomes operational at least one practice drill will be held per season to give new personnel a chance to practice emergency response skills. Each practice will be evaluated and a report prepared with the objective of learning where gaps and deficiencies (either in skills or physical resources) exist, and in what areas more practice is required.

### Appendix I

### **Project Site Map**



### Appendix II

NWT/Nunavut Spill Report Form



# NUNAVUT SPILL R, FPORT (Oil, Gas, Hazardous Chemicals or other Materials) NUNAVUT KUVIHIMAYMIK UT (Ukhukyuak, Gasiliik, Hivuganaktun Aavughat A

24-Hour Report Line Uumiyuituk Unikhiut Hivayaut uniit) Phone/Hivayaut (867) 920-8130 Fax/Kayumiktuk (867) 873-6924

A Report Date and Time Uniutim Ublua Ublukhiutalu		B Date and Time of Spill(if known) Ublua Ublukhiutalu Kuvinium(ilihimayaukpan)		C Original Report Hivulikpak Uniut	Spill Number Kuvinium Napa				
						1.00			
					Update No Ilihimapkangnik Napa.				
D Location and Map Coordinates (if known) and Direction (if moving) Humituk Nunauyamilu Pakitjutaa (ilihimayaukpan) Humungaulikalu (kugluakan)									
E Party Responsible for Spill ( Full Name and Address) Kitkuut Kuvipkaiyun (Tamaita Atiin Nunakakviangalu)									
F Product(s) Spilled and Estimated Quantities(provide metric volumes/weights if possible) Hunat Kuviyun Angiklilangiidu(tunilugin kafi kaalanlu/ukumaitilangalu ilihimagungi)									
G Cause of Spill Huuk kiviyuk									
☐ Is Spill Terminated?	T If Soill is Continuir	ng, give Estimated Rate Kuvigaanginakan	ed Rate Kuvigaanginakan 🔰 Is Further Spillage Possible? K			Extent of Contaminated Area(in square metres if possible)			
Kuvihuikaa? kayumilanguta ukagul					Angiklilanga halumaighimanuim(uuktuut kikagituk miitusni ilihimagungni)				
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N Action, if any, taken or Proposed to Contain, Recover, Clean up or Dispose of Product(s) and Contaminated Materials Hulivin, huliguvin, Kanuklu Kaatitiniaka, Pifaklugu, Halumaktiklugu Igitlugiitluniit Kuvihimayut									
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