# Diamondex Resources Ltd.

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# Revised Final Restoration and Abandonment Plan

Heeqou Project Kitikmeot Region, Nunavut

NWB License #2BE-HEE0712 INAC Land Use Permit #N2005C0022

June 20, 2011



#### I. Preface

This Revised Abandonment and Restoration Plan (A&R) is in effect as of June 20, 2011 and is specifically applicable to Diamondex's Heeqou Project. Seasonal exploration activities were supported from the temporary Heeqou campsite during the summer months of 2002 to 2006. The camp itself is located at 65° 59' 08''N and 112° 45' 35'' W, approximately 220 km SE of the town of Kugluktuk, NU. The Company has not conducted any programs from the camp since 2006 and in 2008 the camp was removed and the site reclaimed. This revised version A&R was prepared in partial fulfillment to the specific actions the Company was directed to undertake by the Nunavut Water Board (NWB) to address submissions they received from Environment Canada, INAC, and the Hamlet of Gjoa Haven, Planning and Lands<sup>1</sup>.

A property map and camp layout is included in the Appendices as are photographs of the Heeqou camp site's removal and restoration.

#### II. Introduction

Over the period the camp was occupied it supported several consecutive till sampling campaigns designed to confirm the presence of kimberlite indicator till trains which may be related to a local sources, i.e., kimberlite. In 2005, an airborne geophysical survey was completed over portions of the project area, but the crew and equipment for this work were based at the Lupin Mine. That same year, a total of 25 airborne anomalies were ground checked by the same crews that collected follow-up till samples. While Diamondex did plan for drill testing high value targets, none was ever undertaken. In addition to the activities listed above, a Quaternary mapping program was complete during the 2002 field season. All exploration programs over the lifetime of the Heeqou project were supported by light helicopters which transported crews to sample sites and geophysical anomaly locations. A summary of the exploration programs completed at the Heeqou project follows:

**2002:** Between July 30, 2002 and August 7, 2002, 287 till samples weighing approximately 25kg each were collected by Diamondex staff. A three day Quaternary mapping program was completed by Terrain Analysis & Mapping Services Ltd. on August 3, 2002.

**2003:** The Heeqou camp was unoccupied during 2003 but on July 24<sup>th</sup>, 26<sup>th</sup>, and 31<sup>st</sup>, a total of 100 till samples were collected from the property.

**2004:** No exploration work was undertaken on the Heeqou property itself during the 2004 field season but the camp did support till sampling crews that investigated the area immediately surrounding the property. The camp was occupied August 16 - 24 inclusive.

**2005:** Between July 27 and August 3, a total of 263 till samples were collected on the Heeqou property. A total of 25 high priority airborne geophysical anomalies were ground checked by the same crews that collected that season's till samples. During the spring of 2005, Fugro was

<sup>&</sup>lt;sup>1</sup> Environment Canada (EC), April 6, 2009, Indian and Northern Affairs (INAC), March 17, 2009, and Hamlet of Gjoa Haven, Planning and Lands, March 6, 2009



contracted to fly a 3,100 line kilometre geophysical survey. This high resolution magnetic and electromagnetic survey was supported entirely from the Lupin Mine site.

**2006:** Between July 17<sup>th</sup> and 26<sup>th</sup>, a total of 236 till samples were collected over the breadth of the project by crews based out of the Heeqou camp. In addition, 16 priority geophysical anomalies picked from the 2005 airborne survey were ground checked.

**2007:** No work conducted on the Heeqou property.

**2008:** No work conducted on the Heeqou property. Heeqou camp was removed in August of that year.

**2009:** No work conducted on the Heegou property.

**2010:** No work conducted on the Heeqou property. On July 29, 2010 the camp site was visited by an INAC Water License Inspector and issues of concern were noted with respect to final clean-up activities. On that same date an INAC Resource Management Officer inspected Heeqou camp and noted that "...the site is in a clean and natural state..." and recommended closure of LUP#N2005C0022. On November 12, 2010, Diamondex was granted Final Clearance with respect to operations conducted under the LUP.

#### III. Infrastructure

Heeqou camp site is located at 65° 59′ N and 112° 45′ W (420900E/7319300N, UTM Zone 12, NAD 83). First constructed in 2002, the total number of tents and tent floors remained unchanged during its temporary existence. In all, there were six, 14′ x 16′ insulated canvas tents built on plywood floors which themselves were elevated above the ground on wooden blocks. Three of these tents served as crew sleeping quarters and the remaining three were allocated as a combined kitchen/dining, a dry facility, and an office tent. Other temporary wooden structures include a shack used to shelter a 14kW diesel powered generator and an outhouse facility built over a sump.

#### **Infrastructure Support**

Potable Water Supply and Greywater System

Potable water is taken from the lake in front of the campsite. Water is periodically pumped from the lake to a 200 gallon cistern located in the dry. When water is required a portable water pump is brought to the lakeshore. A two inch supply hose with a 1 mm stainless steel wire mesh wrapped around the intake is suspended approximately a foot off the lake bottom to reduce the chances of disturbing the lake bottom sediment and entraining any solid materials, including vertebrae eggs. Once the cistern is filled the portable pump is removed and placed back in the dry. The waterline running from the pump to the dry is rolled up and stored as well between uses. When the camp is in operation, the cistern can be re-supplied with fresh water up to three times in a single day (approximately 600 gallons or 2.73m<sup>3</sup>).



The grey water system comprises a network of plastic pipes connected to the sinks in the dry and kitchen as well as the portable shower stall. These drain pipes lead into sumps located behind these two buildings. See Table 1 for GPS coordinates for the grey water sumps. Care is taken to ensure that no solid wastes or potentially toxic chemicals are allowed to enter these sumps. The kitchen drainage in particular is carefully monitored as organic materials which can get caught up in the sump will attract wildlife.

**Table 1: Coordinates for Heeqou Camp Sumps** 

<b>Sump Description</b>	Latitude Longitude	
Dry	65° 59' 03" N	112° 44' 49" W
Kitchen	65° 59' 02.9" N	112° 44′ 49" W
Latrine	65° 59' 03.4" N	112° 44' 49" W

#### Refuse Disposal Facilities

A sump at the base of a single latrine provides storage for the camp sewage.

Up until the last season the camp was occupied (2006) an incineration area comprising a two compartment burner was utilized. Materials that were deemed combustible according to the camp's permits to that date were burned on a daily basis. The incinerator comprised two stacked 45 gallon drums. The top drum has its bottom removed and a heavy screen was placed between the containers. Combustible material is loaded in the top chamber and any residual ash is removed from a door cut into the base of the lower drum. This door also provides additional air to the burning chamber which increases the combustion temperature. Any materials recovered from the lower drums was bagged and flown to Yellowknife for proper disposal.

#### Generator Shed Area

The generator shed is a simple structure designed to shield the power plant from the elements and to serve as a storage area for generator parts, tools and oils. This wooden structure also keeps the generator off the ground and along with the installed drip pans and absorbent material serves to keep hydrocarbons from spilling onto the ground during re-fueling procedures or generator operation. Used engine crank case oil from routine maintenance of the power plant is collected and removed flown from camp for proper disposal.

#### Transportation Facilities

All transportation to and from camp is supplied by either a light helicopter or float equipped fixed-wing aircraft. A temporary 30 foot wooden dock was placed in the lake directly in front of camp to facilitate the loading and unloading of aircraft. The helipad is a relatively level patch of ground located near the edge of camp. All re-fueling activities took place there with Jet-B drums moved to this site from the nearby fuel cache by helicopter sling load when required.



#### IV. Seasonal Shutdowns

Between each of the summer field seasons the camp was used during the years 2002 and 2006 inclusive, the site was prepared for winter shutdown in a manner that would minimize or eliminate any harm that could occur to the camp and its environment while at the same time, expedite its start-up the following season. To that end, most if not all the tents were removed for storage in Yellowknife along with the generator and other portable equipment (supply and demand water pumps, kitchen and dry appliances, etc.). Water lines were drained and the grey water sump was covered with a plywood lid which was weighted with a full fuel drum. The sewage sump was treated with chloride of lime.

Typically all the remaining material including wooden benches and bed frames were neatly stacked on the tent floors. Oil stove fuel supply drums were emptied and left on their stands or were stored in an upright position with the bungs tightly sealed (experience has determined that fuel supply drums left over the winter months in a horizontal position can complicate winter stove start-ups as the water will separate and find its way to the lowest elevation in the container, essentially putting a block of ice where the fuel needs flow to reach the stove carburetor). Empty fuel drums and propane cylinders were routinely back-hauled to Yellowknife during the program. Full fuel drums were stored near the helicopter pad in a horizontal attitude with all the bungs facing the same direction and the barrels rotated so that the bungs were in a 3 and 9 o'clock position. Any remaining propane cylinders were stood on their bases and securely tied together.

#### V. Final Abandonment and Restoration

At final abandonment of the camp all tent structures and contents therein deemed salvageable or reusable was dismantled and transported by fixed wing aircraft to Yellowknife. Non-reusable items comprised of materials deemed safe to burn on site was comprised primarily of wood products used to construct the tent floors, generator shed, dock, and latrine (plywood and 2 x 4's). After this material was burned at a single site it was swept for any residual metallic materials (nails and screws mostly) with a powerful magnet. These non-combusted products were bagged and removed for disposal at an authorized site in Yellowknife. No plastic materials such as PVC pipe or tarps were burned on site and all electrical wiring was salvaged and removed from the site. No surfaces were ever painted on site and no preserved wood products were delivered to the Heeqou camp.

The ground immediately beneath the footprint of the 6 tent frames and the generator shed was raked and any loose grass and other dead plant material was removed. It is thought that the removal of the dead plant material may help prepare the sites for volunteer reseeding by the surrounding tundra flora.

Drip pails and pans located on oil drums that supplied the tent stoves and the generator shed were cleared of all hydrocarbon absorbent material which were then bagged and removed for proper disposal in Yellowknife. All aforementioned pails and drip pans were removed from the site. No fuel spills were reported from the helicopter pad area or anywhere else in camp but had



this been the case the contaminated soils would have been removed and brought south to an authorized site for disposal.

The sewage latrine was treated with chloride of lime before it was backfilled to match the preexisting lay of the land surface. The greywater sumps were also backfilled and contoured to match the surrounding area.

All fuel drums and propane cylinders were removed from the site during the camp's abandonment and restoration. As of the end of August 2008, no materials or fuel containers are present at the Heeqou camp site.

Table 2: Inventory of Materials and Fuel Remaining at Heeqou Camp

Description	Tent Floors	Jet B Drums	Diesel Drums	Propane Cylinders
Prior to camp abandonment				
and restoration	6	15	9	2
After camp abandonment				
and restoration	0	0	0	0

#### **Appendices**

#### **Appendix I: Property Maps**

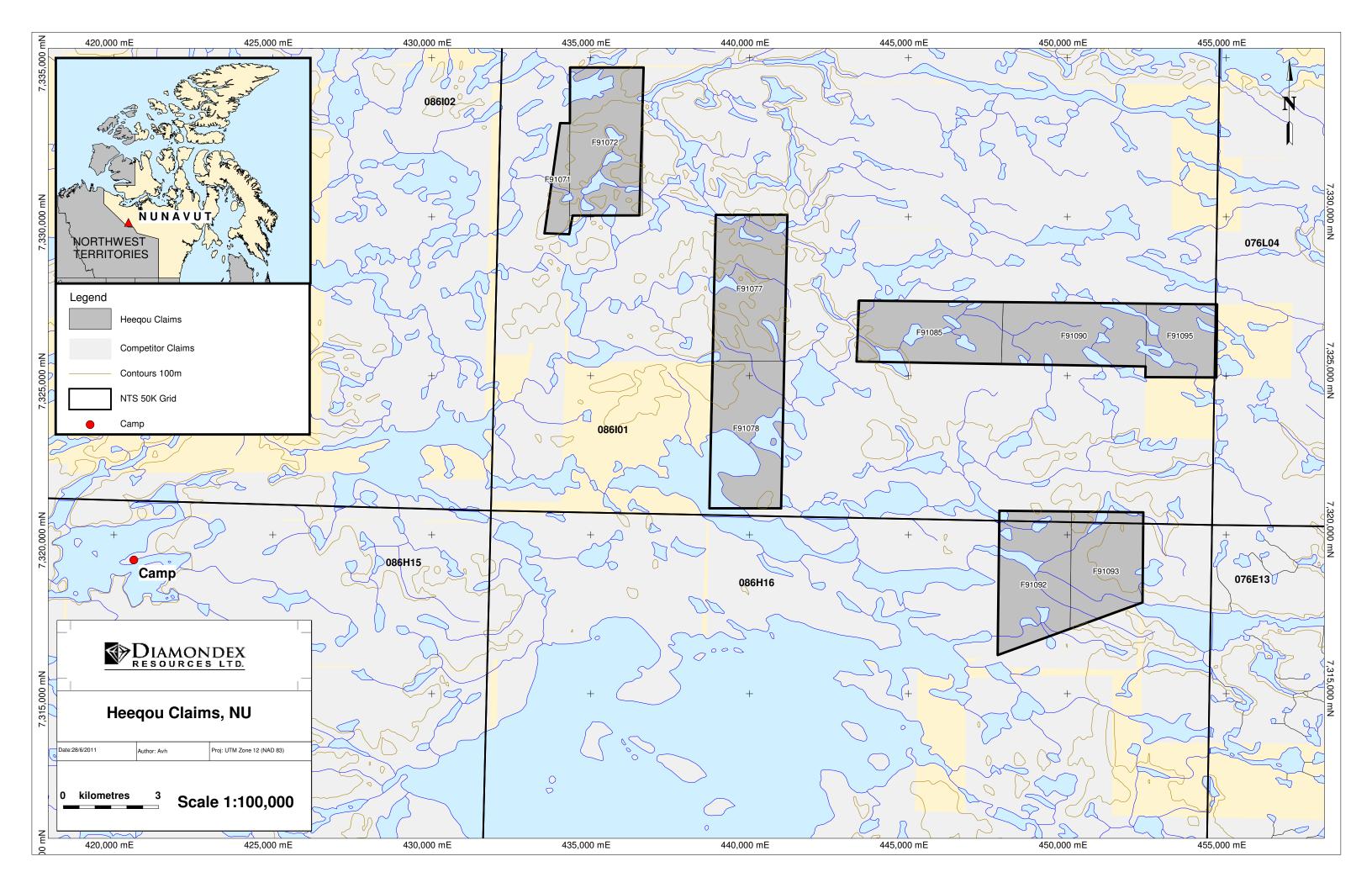
- 1. Current Heegou Claims and Heegou Camp Location
- 2. Detailed Plan of Heeqou Camp

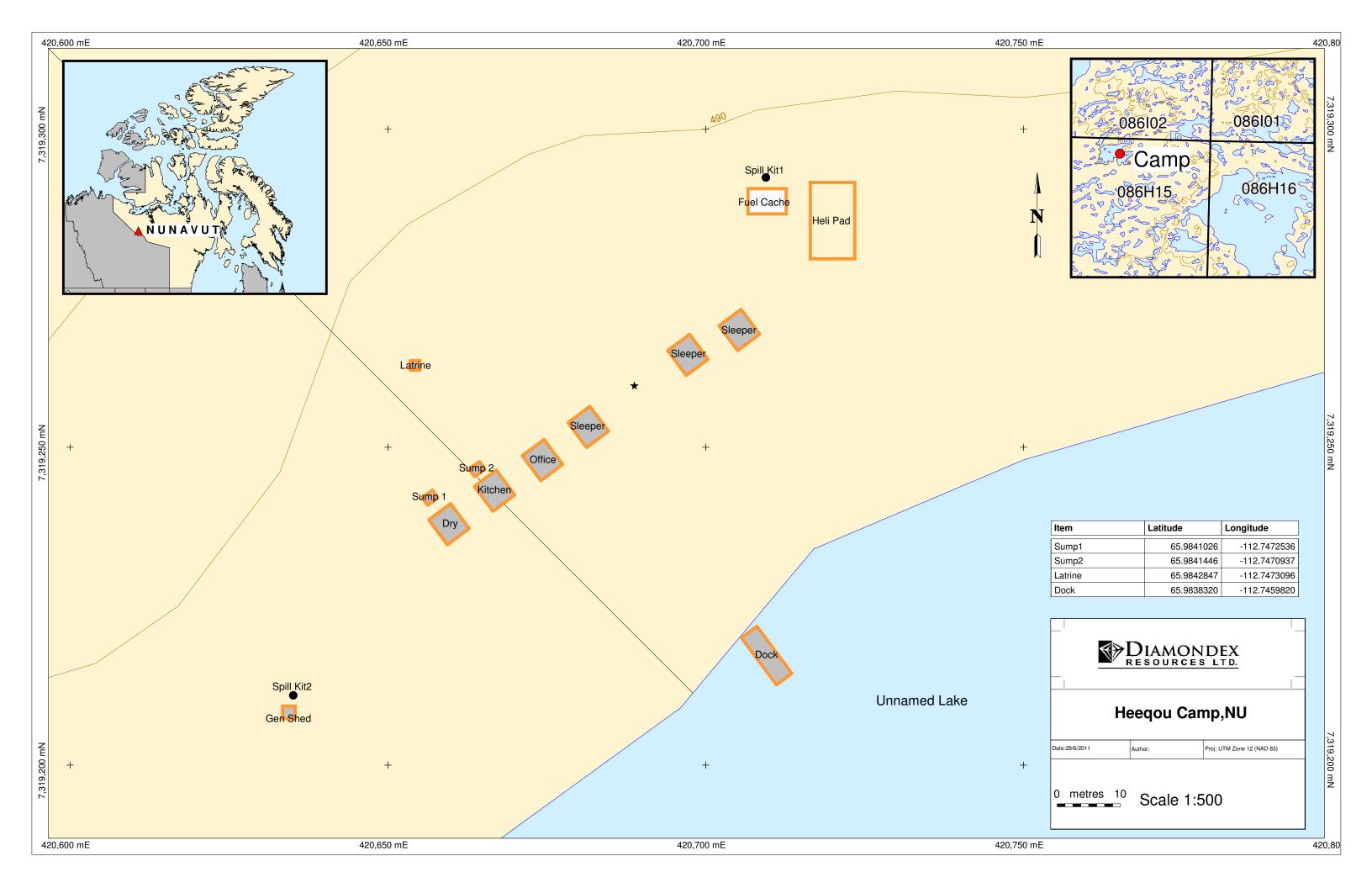
#### **Appendix II: Heeqou Camp Photographs**



# **Appendix I**

# **Property Maps**







# Camp (August 2006)





# Diesel Drums (August 2008)





## **Tent Floors (August 2008)**





## Jet B Drums (August 2008)





**Tent Floor Area (August 2008)** 

