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## **IRONONE INC.**

# **ATTACHMENT E**

# ABANDONMENT and RESTORATION PLAN

Maguse River Iron Project Nunavut

# Abandonment and Restoration Plan prepared March 31st, 2011.

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Figure 1 – Location Map

### Maguse River Iron Project Nunavut Abandonment and Restoration Plan

### 1. Preamble

This Abandonment and Restoration (A&R) is in effect until the expiry of IronOne's land use permit and water licence (currently being applied for) and applies to the work areas that are proposed by IronOne during their exploration programs on the Maguse River Iron Project, Nunavut, located approximately 60-100 kilometres northwest of Arviat. Questions or concerns regarding this Plan can be directed to Paul Sobie, President, or Michele Cote, Senior Consulting Geologist of MPH Consulting Limited, for IronOne at 416-365-0930 (Phone) or 416-365-1830 (Fax).

### 2. Introduction

This A&R plan has been prepared for one temporary campsite plus fuel cache and proposed diamond drilling programs on IronOne's Maguse River Iron Project in the upcoming years. The camp to be used for the 2011 and 2012 field seasons is to be constructed on a small lake along the Wallace River system, approximately 20km inland from Hudson Bay (Figure 1).

A 22 person camp will be erected at 61 deg 45 min 10 sec N, 93 deg 59 min 11 sec W by Eskimo Point Lumber Supply/Airport Services Ltd. ("Eskimo Point") of Arviat. The camp will consist of:

7-10 14' x 16' sleep tents

One 32' x 14' kitchen tent

One 14' x 16" core logging tent

One 14' x 16" core cutting tent

Two 14' x 16' dries

One 8' x 10' cook/first aid tent

One 14' x 16' office tent

Two latrines utilizing Pacto facilities

One generator shack with Spill Kit

One steel shipping container (lockable)

One heli-pad

One incinerator

One fuel cache with Spill Kit

### 3. Schedule

The final restoration of the camp and drill sites will begin when the program is fully completed and will be finished prior to the expiration of the land use permit and water licence unless a renewal is applied for. As IronOne practices progressive reclamation such as filling drill sumps,

cutting off drill collars to ground level and removing garbage, equipment and empty fuel drums as the program progresses, the final restoration effort will be minimal.

### 4. Infrastructure

### **Proposed Camp**

7-10 14' x 16' sleep tents

One 32' x 14' kitchen tent

One 14' x 16" core logging tent

One 14' x 16" core cutting tent

Two 14' x 16' dries

One 8' x 10' cook/first aid tent

One 14' x 16' office tent

Two latrines utilizing Pacto facilities

One generator shack with Spill Kit

One steel shipping container (lockable)

One heli-pad

One incinerator

One fuel cache with Spill Kit

### 5. Seasonal Shutdown

### **Buildings and Contents**

All canvas tents will be removed from site for winter storage. Wooden structures (generator shack, latrine and tent frames) and the shipping container will be kept secured. All empty propane and fuel drums as well as the generator will be removed from site at the end of each season.

### **Water System**

Pumps and hoses will be drained and dismantled. Pumps will be removed from site for servicing and storage. Hoses will be stored in the container or generator shack for the winter months.

### **Fuel Caches and Chemical Storage**

An inventory of all fuel caches will be made prior to camp demobilization at the end of each season as well as a thorough inspection of all full drums. Empty drums will be constantly backhauled to Arviat during the course of the program.

Chemicals will be stored and locked in the container over the winter months.

#### Waste

<u>Combustible Waste:</u> All combustible waste will be incinerated as the program progresses. All ash will be collected and disposed of in an approved landfill site at Arviat. The incinerator will be stored on site over the winter.

Non-combustible Waste: All non-combustible waste will be sent to an approved disposal site via Eskimo Point Lumber Supply/Airport Services Ltd. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having the proper documentation in the form of a waste manifest. More details of this information can be found in Appendix IV of the company's Fuel Spill Contingency Plan.

Grey Water Sump: The sump will be inspected, marked and covered for the winter.

<u>Black Water:</u> Pacto toilets being utilized, with the waste incinerated.

#### **Drill Sites**

The drills will be dismantled at the last drill collar and all equipment will be flown via helicopter back to camp for demobilization. The drill and all ancillary equipment will be flown off-site to Arviat via Twin Otter aircraft.

All drill sites will be inspected immediately upon completion of each drill hole. All waste will be collected and flown to camp for incineration or removal to an approved disposal location. All sumps will be backfilled and each drill collar will be cut off to ground level should casing not be pulled and recovered.

Photographs of each drill site will be taken at the completion of clean up at each site.

#### **Contamination Clean Up**

Any soil at camp or at the drill sites that has become contaminated will be treated as per the Fuel Spill Contingency Plan. All non-combustible waste will be sent to Arviat via chartered aircraft to be disposed of in an approved disposal site. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having the proper documentation in the form of a waste manifest. More details of this information can be found in Appendix IV of the company's Fuel Spill Contingency Plan.

### **Inspection and Documentation**

A complete inspection of all disturbed areas (drill sites, camp and fuel caches) will be conducted prior to seasonal closure of the project with a full inventory taken for each location. A photographic record will be kept of each work area and campsite before, during and after the project is complete.

## 6. Final Abandonment and Restoration

### **Buildings and Contents**

All buildings and structures will be dismantled and removed. Wooden structures will be burned and ashes sifted to retrieve non-burnable items which will be removed from site.

### **Equipment**

All equipment including generators and pumps will be removed from the project site.

### **Fuel Caches and Chemical Storage**

All fuel drums and chemical containers will be removed. All sites that contained fuel cached will be inspected and any contamination will be dealt with according to the Fuel Spill Contingency Plan. All debris will be removed. Final photos of fuel caches will be supplied.

### Sumps

All sumps will be inspected and backfilled. Final photos will be taken and supplied to the NWB.

### **Camp Site**

A final inspection of the camp site will be made to ensure no waste remains. Final photos will be taken.

### **Core Storage**

All core storage areas will be inspected to ensure the core is properly stored.

### **Drill Sites**

The drills will be dismantled at the last drill collar and all equipment will be flown via helicopter back to camp for demobilization. The drill and all ancillary equipment will be flown off-site to Arviat via Twin Otter aircraft.

All drill sites will be inspected immediately upon completion of each drill hole. All waste will be collected and flown to camp for incineration or removal to an approved disposal location. All sumps will be backfilled and each drill collar will cut off to ground level, should casing not be recovered.

Photographs of each drill site will be taken at the completion of clean up at each site.

### **Contamination Clean Up**

Any contamination will be treated as per the Fuel Spill Contingency Plan. Any contamination and subsequent clean up will be documented with photographs. All non-combustible waste will be sent via Kasba Lake, NT to an approved disposal site. All carriers and receivers of this material will be informed of the need to register with the Government of Nunavut, Department of Environment as well as having the proper documentation in the form of a waste manifest. More details of this information can be found in Appendix IV of the company's Fuel Spill Contingency Plan.

### **Aircraft Landing Strips**

The landing strip utilized at the camp will be located on the esker which is composed of coarser sand and gravel and is well drained. Due to the coarse nature of the esker material only minimal rutting will occur. This rutting is expected to be repaired by natural freeze/thaw cycles. In the event the ruts require additional backfilling it will be done manually upon final abandonment and restoration.

### **Inspection and Documentation**

A complete inspection will be conducted of all areas prior to closure. Photographs will be taken to document the conditions of each site prior to final demobilization for use in the final plan/report. All appropriate agencies will be contacted once final clean up is complete.