## **APPENDIX A - TECHNICAL SUMMARY**

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### 1 Project Activities

Project activities involve ground geophysical surveys, followed by helicopter supported diamond drilling for kimberlite. Forty to fifty, maximum depth of 110-meter drill holes are planned for the 2005 field season. Field exploration will also consist of field mapping, soil and till sampling during the summer months. Due to the size of the project area it is expected that these activities will continue for many years. The object of the exploration is the discovery of economic mineral deposits. In the long term, assuming a prospective deposit were discovered, activities would lead to the establishment of support infrastructure for a mining operation.

4579 Nunavut Ltd. intends to be conducting ground geophysical surveys and core drilling within the project area in the upcoming spring and plan on using the town of Rankin Inlet as a staging area until a camp is established on Josephine Lake.

### 2 Expected Schedule

01-Mar-2005 Mobilize fuel and field crews to Josephine Lake to

construct camp. Conduct ground geophysical

surveys and core drilling in the project area.

30-Nov-2005 After intermittent breaks in the exploration program

we expect to terminate exploration for the year.

We are planning a similar schedule for the 2006 exploration program.

# 3 See attached plan maps

#### 4 Structures

The camp will consist of:

- 12 14' x 16' insulated tents on wood frames. These tents would function as sleep tents, an office, core tent and first aid station
- 2 14' x 32' insulated tent on wood frames. These tents would function as the kitchen mess and the dry

- An outhouse facility which will utilize "Pacto" toilets. The "Pacto" toilets do not require electricity or water. Instead a flush foil is used to encapsulate the waste
- A generator building to house a 20 kW diesel generator as well as a backup generator
- · A helicopter landing area, and
- A garbage incineration area.

### 5 Equipment

Equipment:	Use:	Impact:
Diamond Drill Rig	Core Drilling	Minimal
Helicopter	Transporting Field Personnel	None
Bombadier	Transporting Fuel and Supplies in spring	None
Delta	Transporting Fuel and Supplies In spring	None
Snowmachines	Transporting Field Personnel and moving supplies within camp	None
Boat	Water sampling, safety, transport	None

#### 6 Fuel

Approximately 100 drums of diesel and Jet B will be stored at the camp. An additional 200 drums will be stored at the airstrip and will be cycled through camp on an as needed basis. These fuel caches will be stored and monitored as prescribed in our Land Use Permit, Inuit Land Use Licence and Water Licence. Empty drums will be returned to Rankin Inlet for backhaul to the south on the summer barges.

# 7 Fuel Spill Contingency Plan

Please see attached Fuel Contingency Plan

# 8 Camp Waste Disposal

All burnable wastes will be incinerated at the camp. All other waste will be shipped off site and disposed of appropriately.

#### 9 Transportation

During the Spring program transportation from the camp to the drill will be done by snowmachine depending on distance. For greater distances, helicopter support will be utilized. The drill will be mounted on skids and pulled by either the bombardier or delta from site to site. This will depend on adequate snow conditions, otherwise the drill will be moved by helicopter. All routes that the drill will be moved along will be photographed pre and post drill move with the appropriate notifications being sent prior to initiation of the program. A map showing these routes will also be included.

During the summer and fall program, all fieldwork will be supported by helicopter.

## 10 Environmental Components

As the project is still in the initial exploration phase and the environmental impact will be minimal, all effort will be made to ensure that no permanent environmental damage is done. If a significant mineral discovery is made in the project area and further mineral development is required, a comprehensive environmental assessment will be initiated. For further details, please see attached Environmental Procedures Plan.

# 11 Potential Environmental Impacts:

No permanent stress to vegetation is expected around sites of ground geophysical surveys and drill sites.

The environmental impact of exploratory diamond drilling is minimal. The drilling activity usually results in a small puddle of drill cuttings contained near the drill site. Any cuttings resulting from the drilling activity will be impounded at or near the site to prevent dispersion to the surrounding area. All water used in the drilling process will be pumped above the high water mark and away from any water drainages. If drilling additives are required for technical reasons such as drill hole stabilization through broken or faulted bedrock they will be employed only as a last resort. All efforts will be made to limit their usage.

Should drill sites be located on frozen lakes or where natural drainage is toward such lakes, great caution will be taken to ensure that materials and cuttings will not be allowed to accumulate on the lake surface. Any water used in the drilling process or cuttings will be pumped to an area above the high water mark and away from any water drainages

Wildlife nesting and den sites will be respected and efforts will be made to avoid disturbing natural wildlife. A registry of mammal, bird and

fish sightings will be initiated for the IOL parcels and surrounding area. Helicopter flights will be restricted to 1500 feet above ground level where practical.

Sites showing evidence of native human activity will be documented and assigned a GPS coordinate and subsequently reported to the KIA lands officer in Rankin Inlet, the Deputy Minister of Culture, Language, Elders and Youth in Iqaluit and to the Archeological Survey in Ottawa. Nothing will be collected or disturbed at any archeological or potential archeological sites.

For further detail, please see attached Environmental Procedures Plan.

#### 12 Reclamation Cost Analysis:

All of the costs associated with the reclamation plan have been incorporated into the project budget. Any additional reclamation costs will be taken out of the project budget to insure that all reclamation work is completed.

#### 13 Reclamation Plan:

Following the completion of each land based drill hole, drill casings will be removed if possible or cut off level with the ground. Should ground water flow from the drill hole, it will be plugged and cemented in bedrock before drill stem removal to prevent such flow.

For lake based drill holes, all holes will be plugged and cemented in bedrock, below the lake bottom and the drill casing will be removed from the lake. No material or residue will be allowed to accumulate on the lake surface. Any material that may become frozen into the ice during drilling activities will be chipped out and removed to camp for proper disposal.

All equipment, fuels and supplies will be removed from the drill sites upon completion of each hole. The project manager shall then inspect each site to ensure that it is properly restored.

For further detail, see attached Abandonment & Restoration Plan.

#### 14 Socio-Economic Benefits:

Support services where practical will be sourced in local communities. The long-term goal is the exploitation of an economic resource that would provide the local economy with sustainable employment and infrastructure. Nunavut registered companies will be favoured for logistical and technical support.