

ENVIRONMENTAL MANAGEMENT PLAN
MPH Consulting Limited

Turquetil-Esker Drilling Program
Turquetil-Henik Lakes Area
Nunavut

Environmental Management Plan Prepared March 31, 2021

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1. Summary of Potential Environmental and Resource Impacts

MPH Consulting Limited is fully committed to implementing its proposed exploration project in an environmentally responsible manner to protect and sustain the environmental and cultural resources of the project area.

Water usage will be minimal (~100-120 cubic metres/day) and restricted to drill and domestic use at the camp only. Drill operations will be conducted in an environmentally friendly manner and fuel caches will be checked daily for potential leakage. Helicopter usage for purposes of supporting drilling operations is and has been the standard practice of many exploration companies now and in the past with no impact to wildlife or the environment. Pilots will be instructed to avoid wildlife during operations. Congregations of wildlife are not expected in the area but will be avoided should any be encountered.

The total estimated surface disturbance for all of the drill sites (approximately 10-20 for each year of the permit) is estimated to be a maximum of 0.3-0.5 ha/year. The small quantities of benign drill cuttings ($0.14 \text{ m}^3 / 100\text{m}$ drilled) generated at each drill site will be re-deposited back down the hole if possible before freezing, or deposited in natural depressions or sumps and will affect small areas of sparsely vegetated tundra within the footprint of the disturbed area at each drill site. All garbage, fuel drums and equipment will be removed from each drill site.

There will be no deleterious effects to water quality due to the protection measures outlined by DIAND and the NWB which includes restrictions as to how close to water bodies the drill, sumps and fuel caches are allowed.

Additionally, the following mitigation measures will be undertaken to reduce, control and/or eliminate all together, potential environmental effects.

1. Adhering to the Caribou Protection Measures; specifically not working in any core calving areas between May 15th and July 15th.
2. Avoiding low level flights over areas known for waterfowl nesting.
3. Adhering to the Recommended Environmentally Acceptable Minimum Flight Altitudes.
4. Equipping all water intake hoses with an appropriate screen mesh size to ensure no entrapment of fish.
5. Provide necessary controls to prevent sedimentation and/or erosion of water bodies or adjacent land.
6. Using only lake water for drilling operations.
7. All drill cuttings will be re-deposited back down the hole if possible before freezing, or disposed of and contained in natural depressions or hand dug sumps located at least 30

meters from any high-water mark such that the cuttings do not enter any water bodies. As 100% of the rock cored is brought to the surface and transported to camp (and then to the laboratory), the volume of drill waste created for a 100 meter long hole is only 0.14 cubic meters.

8. All pits/sumps will be backfilled and contoured when operations are complete.
9. Only environmentally acceptable and approved muds and additives (as per DIAND regulations) are to be used during drilling operations.
10. Drill holes to be plugged and permanently sealed if artesian flow is encountered.
11. All fuel caches will be located a minimum of 30 meters from the normal high-water mark. Spill kits will be present at all fuel caches and drilling operations.
12. MPH possesses and maintains a current Emergency Response Plan including a Fuel Spill Contingency Plan that all employees and contractors are required to adhere to. These policies also include safety, emergency, fire and medi-vac procedures and are described in detail in MPH's Safety Manual/Field Guide.
13. Construction of a raised platform to elevate the incinerator will mitigate problems with heat affecting the soil and permafrost.

It is also recognized that portions of the operational areas may contain significant archaeological, cultural and historic sites. Any archaeological sites encountered will not be disturbed. If a site is found during operations, work in that vicinity will stop, a 30 metre buffer around the area will be established, the site will be photographed and GPS coordinates will be recorded. No exploration work will take place in the vicinity of these sites or any new sites encountered. New site locations will be relayed to the Department of Culture, Language, Elders and Youth.

As the project area is located approximately 120-180 kms northwest of Arviat and 100-200 km southwest of Whale Cove, socio-economic impacts will be positive. MPH will continue its practice of purchasing all goods and services from local supplies whenever possible. The camp will be serviced weekly from the community of Arviat. MPH will also encourage all contractors operating on the project to hire locally. Due to the remote nature of the project site no conflicts with traditional land use and harvesting is expected. MPH possesses and maintains a current Emergency Response Plan including a Fuel Spill Contingency Plan that all employees and contractors are required to adhere to. These policies also include safety, emergency, fire and medi-vac procedures and are described in detail MPH's Safety Manual/Field Guide.

In terms of cumulative environmental effects these result from the combination of environmental effects from a number of different developments and/or activities. In determining possible cumulative effects, the Canadian Environmental Assessment Agency (CEAA 1999) recommends that three basic premises be considered:

- There must be an environmental, biophysical, social or cultural impact related to the project.
- The effect must be demonstrated to operate cumulatively, additively or synergistically with impacts from other projects or activities.
- The other projects or activities exist or are likely to be carried out and are not hypothetical.

Any environmental impacts as a result of the proposed exploration activities can be mitigated. In total, the residual environmental effects of MPH's entire exploration program on the Turquetil-Esker Drilling project are expected to be negligible. No other mineral exploration activities or other industrial development projects are currently known or planned for the area, which further reduces the potential for cumulative effects. As a result, based on CEAA's premises, the proposed MPH's exploration program on the Turquetil-Esker Drilling project is not expected to result in a cumulative effect.

2. Proposed Restoration Plans

All garbage will be incinerated (where possible) or backhauled by Eskimo Point with empty drums to Arviat. During operations progressive reclamation will take place such as cleaning each drill site prior to work beginning at the next site. Before and after pictures of each site will be taken and made available for the public record. All sumps will be backfilled.

A complete restoration plan for the project can be found in the Abandonment and Restoration Plan as an attachment to this application.

3. Proposed Disposal Methods

a) Garbage: All garbage to be incinerated where possible or removed (empty drums) from site to the approved land use site in Arviat.

Combustible solid waste

Burnable solid waste will be burnt in a vented base fuel fed incinerator, the ashes will be barreled and transported to an approved disposal site in Arviat.

Non-combustible solid waste

All non-burnable garbage or debris will be stockpiled at camp and flown to an approved disposal facility located in Arviat.

Bulky items/scrap metal

As above.

Waste oil/hazardous waste

All waste oil and hazardous wastes will be collected and properly stored at camp until such time that it can be transported to an approved disposal/recycling site in Arviat.

b) Sewage (Sanitary and Greywater):

Sewage

Waste from SeptoPac Toilets to be incinerated at camp. backfilled when finished.

Camp grey water

Kitchen and dry greywater will be gravity fed or pumped to a natural depression or a properly constructed sump.

c) Brush and Trees: N.A.

d) Overburden: N.A.

4. Fuel Containment Contingency Plan:

Refer to fuel spill contingency plan (attached).

- All fuel drums will be stored on eskers/ sandy substrate.
- Fuel spill kits will be situated at all fuel caches, at camps and at all operating drill sites.
- Drip trays will be used on all gravity fed drums at camp.
- All empties will be backhauled to Arviat on an on-going basis.
- At least one empty container of equal or greater quantity of the fullest fuel container to be in placed at each cache for secondary containment in case of the necessity of fuel transfer.

5. Location of activities by map co-ordinates:

See figures below:

Turquetil Operational Drilling Area	UTM Zone 15 – 346000E, 6874600N 95.938 degrees West, 61.972 degrees North
Esker Operational Drilling Area	UTM Zone 14 – 592200E, 6829400N 97.263 degrees West, 61.587 degrees North
Henik Lake Camp	UTM Zone 14 – 586500E, 6836500N 97.367 degrees West, 61.651 degrees North

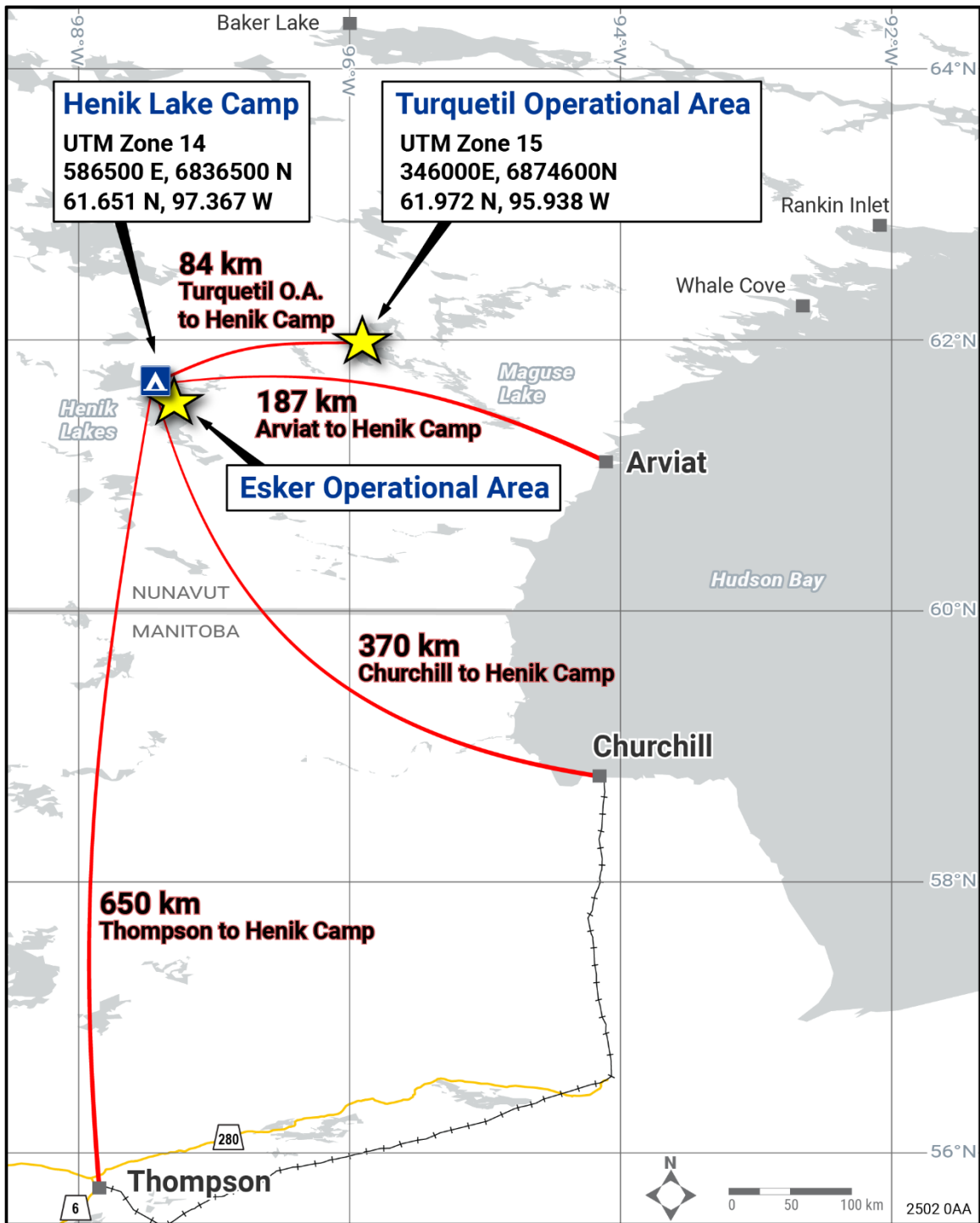


Figure 1 – General Location Map

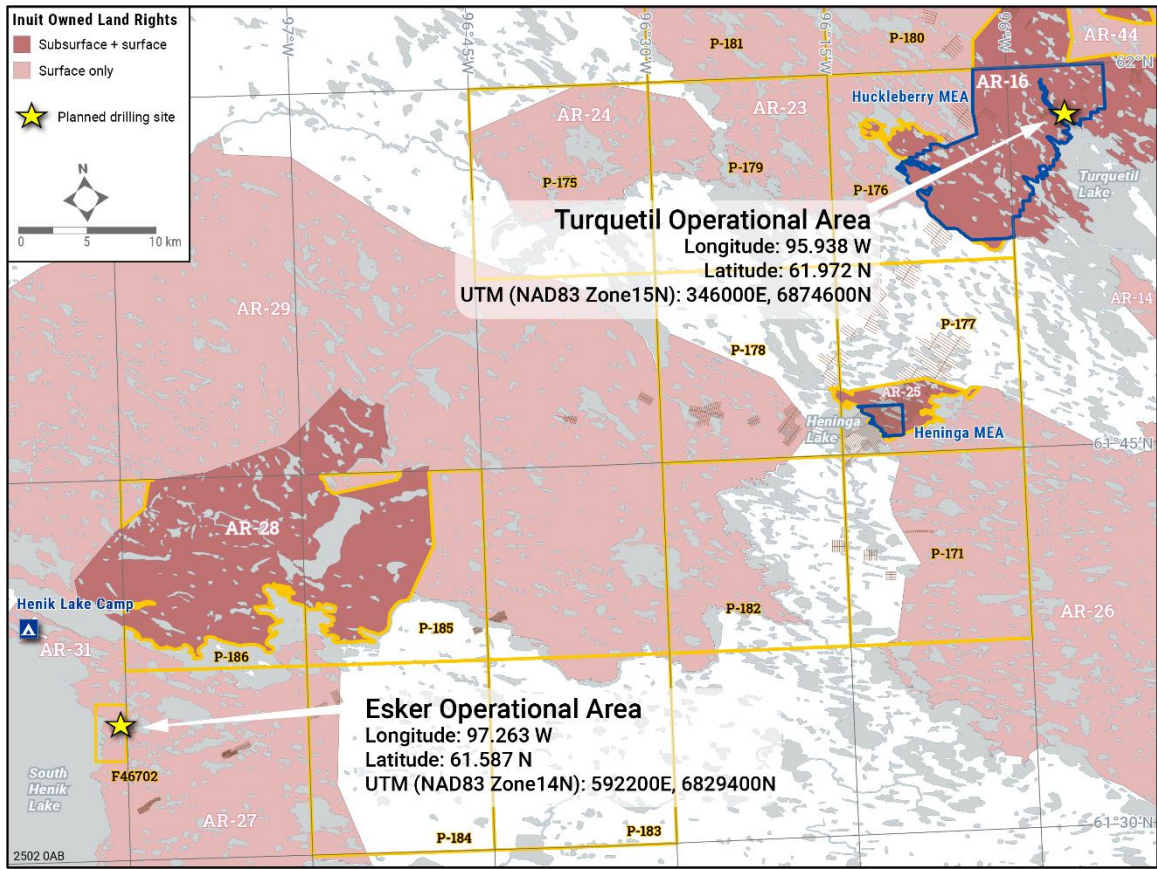


Figure 2 – Detailed Location Map for Drilling Operations

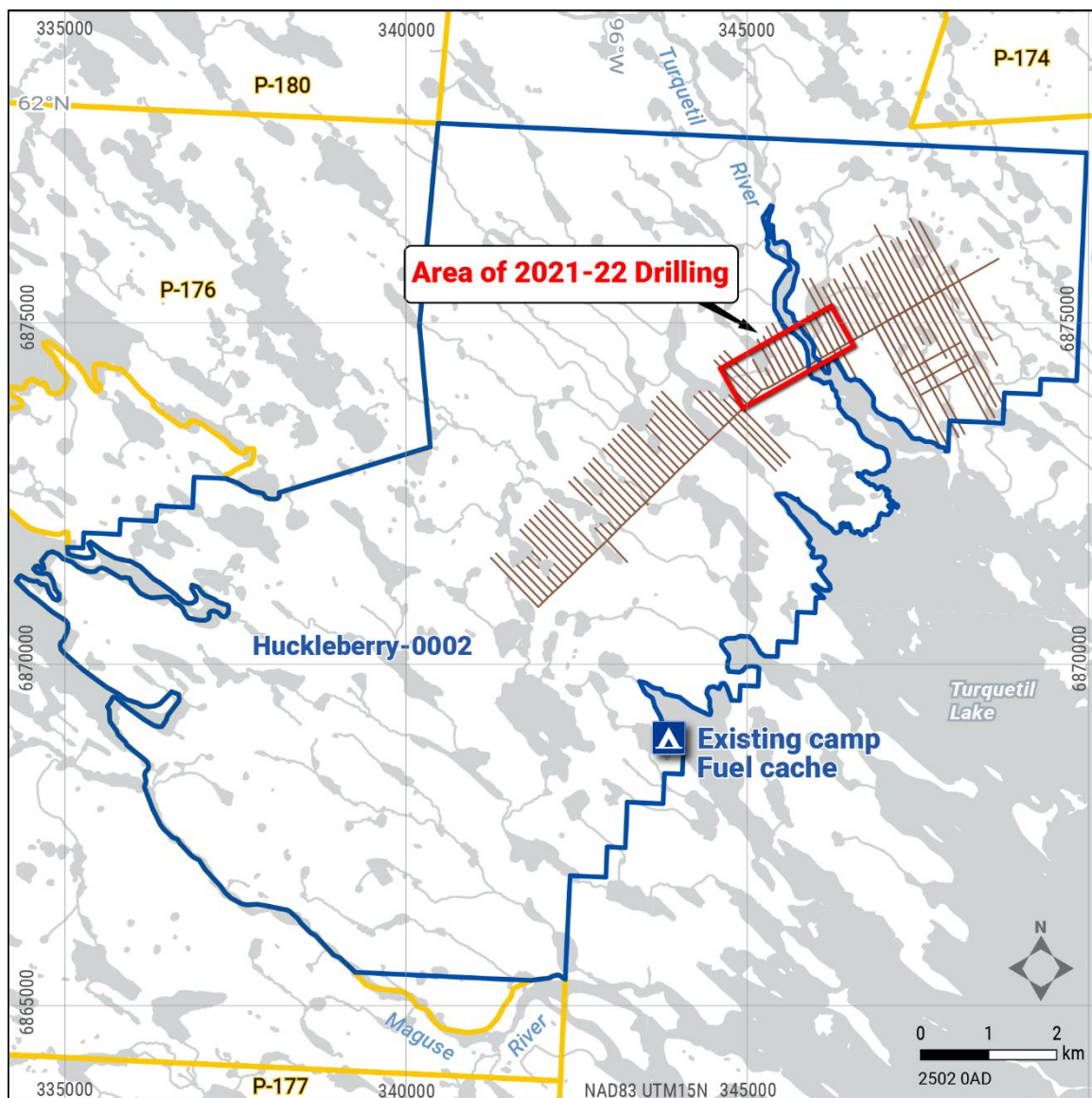


Figure 3 – Turquetil Operational Area Location Map

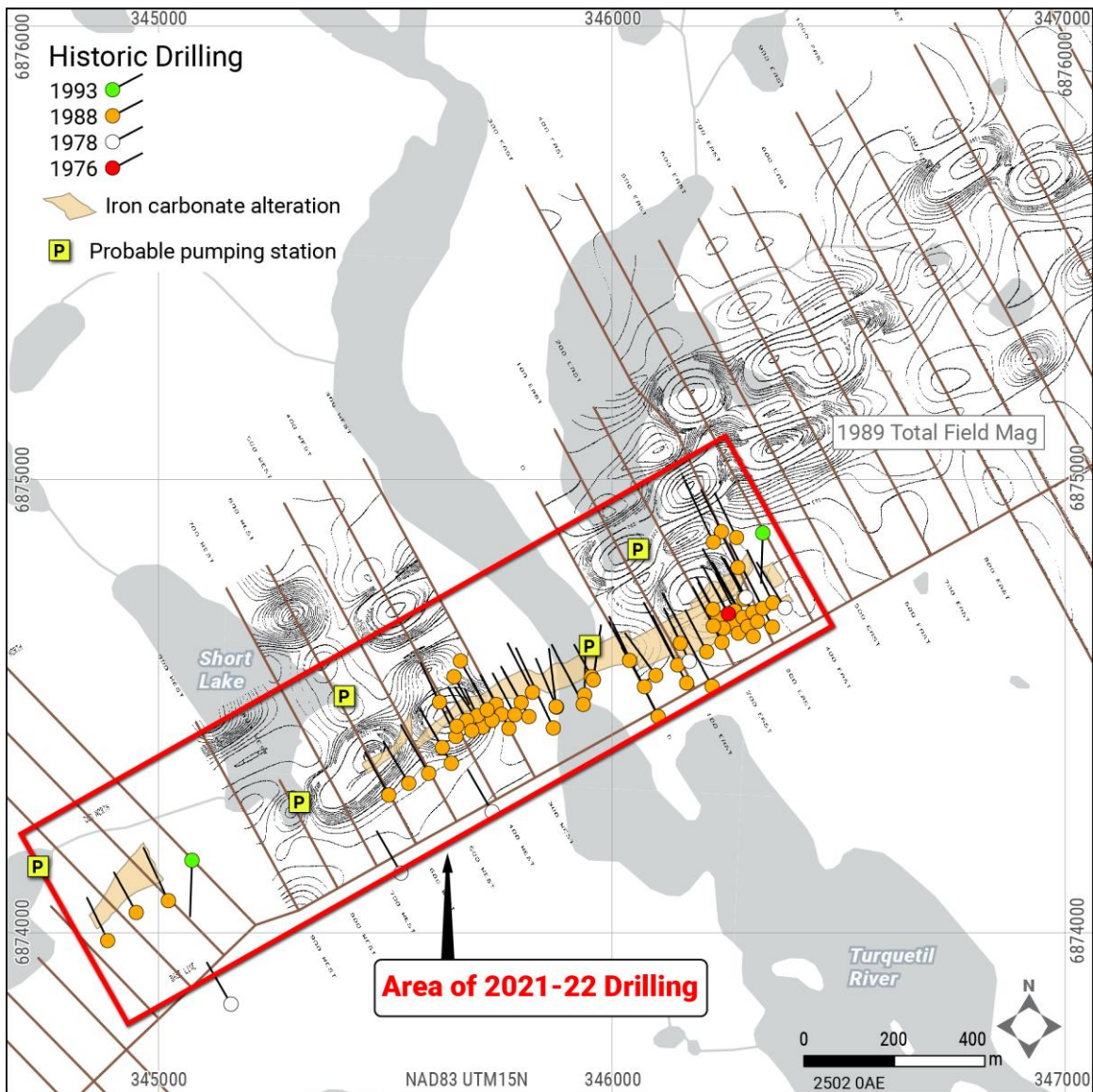


Figure 4 – Turquetil Operational Area Detailed Location Map

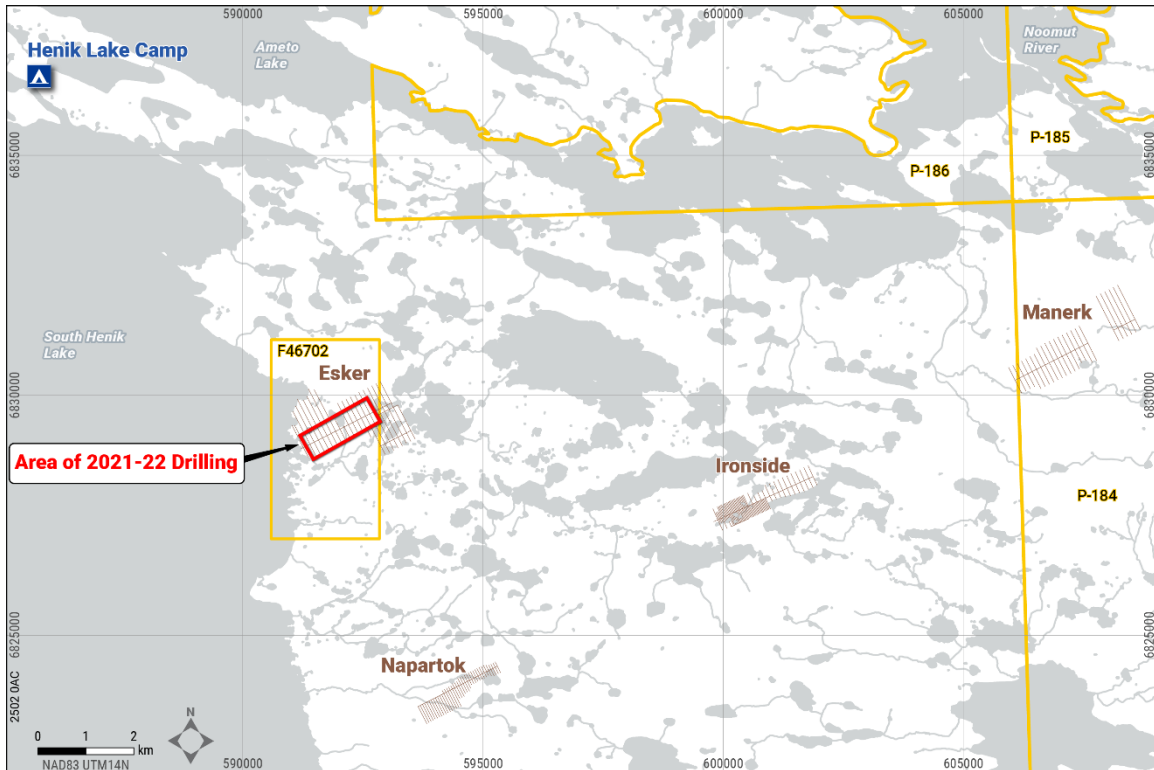


Figure 5 – Esker Operational Area Location Map

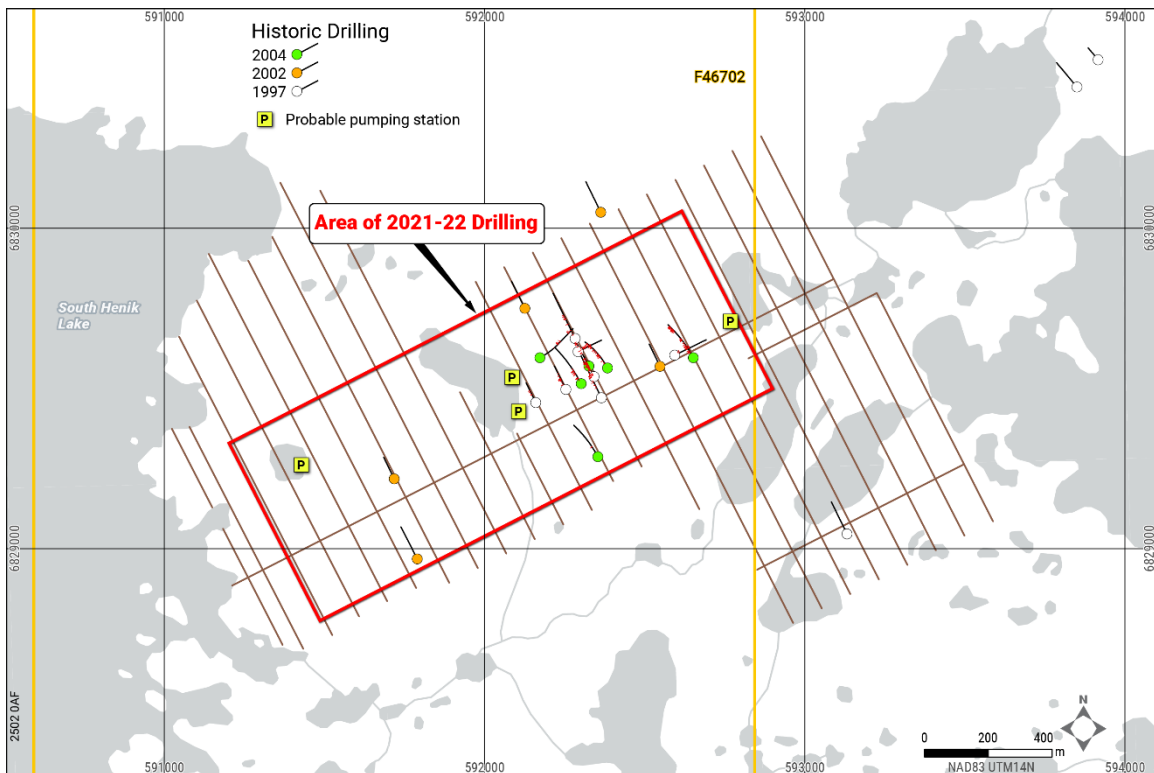


Figure 6 – Esker Operational Area Detailed Location Map