



Environment Canada    Environnement Canada

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*Via Email*

**RE:    NWB2FER0507 – Starfield Resources Inc. – Submission of Abandonment and Restoration Plan – April 2005**

On behalf of Environment Canada (EC), I have reviewed the information submitted with the above-mentioned application. The following specialist advice has been provided pursuant to Environment Canada's mandated responsibilities for the enforcement of the *Canadian Environmental Protection Act*, Section 36(3) of the *Fisheries Act*, the *Migratory Birds Convention Act*, and the *Species at Risk Act*.

In April 2005, Starfield Resources Inc. submitted an abandonment and restoration plan to the Nunavut Water Board for their Ferguson Lake Project mineral exploration program. Ferguson Lake is approximately 162 km southwest of Baker Lake and 245 km west of Rankin Inlet, having general reference coordinates of 62° 55'N, 96° 53'W. Work activities will consist of regional and detailed mapping and prospecting, airborne and ground based geophysical surveys, and a diamond drilling program. Needed materials and supplies will be transported to the project area by a combination of overland transport and fixed wing aircraft. The proponent's camp is located on a large island within Ferguson Lake and has a gravel airstrip large enough to accommodate Twin Otter aircraft.

Starfield Resources will conduct an infill and step-out diamond drill program at 15-20 locations on Ferguson Lake's west side. Waste-water will be collected in sumps and drill cuttings and sludge will be bagged and removed from the project area for disposal at an appropriate waste management facility. Drilling sites will be cleaned and maintained on a daily basis. Should water flow from a drill hole, the hole will be cemented or capped upon the completion of diamond drilling. All lake holes will be cemented. Three diamond drills are currently being used in this project. All drilling equipment will be skidded from one location to another by tractor in the winter months and moved by helicopter throughout the rest of the year.



Empty fuel drums will be removed from the camp by fixed wing aircraft on a regular basis for refueling purposes (there is an annual re-supply program). In the event of a permanent program closure, all drums will be flown to either Rankin Inlet or Baker Lake for proper storage/disposal.

Camp gray water will be disposed of in a sump and all camp wastes, including sewage, will be incinerated.

Environment Canada requests that the proponent revise its camp coordinates. The coordinates provided in the abandonment and restoration plan are inaccurate. After converting the submitted northing and easting data (UTM N 6972828, UTM E 609340, NAD83) to decimal degree minutes of 62.87°N, 90.86°W, it was determined that the submitted location is in Hudson's Bay. To be more precise, the incorrect camp location is 63 km east (slightly north) of Rankin Inlet in the eastern end of Baird Bay and northeast of Marble Island. General reference coordinates for Ferguson Lake are 62° 55'N, 96° 53'W.

Environment Canada recommends that the following conditions be applied to the Ferguson Lake Project's abandonment and restoration plan:

#### GENERAL

- The proponent shall not deposit, nor permit the deposit of any fuel, drill cuttings, chemicals, wastes, or sediment into any water body. According to the Fisheries Act, Section 36(3), the deposition of deleterious substances of any type in water frequented by fish, or in any place under any conditions where the deleterious substance, or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water is prohibited.

#### DRILLING

- Land based drilling should not occur within 30 m of the high water mark of any water body. Drilling wastes from land based drilling shall be disposed of in a sump such that the contents do not enter any water body.

#### CAMPS

- The proponent shall not store materials on the surface ice of lakes or streams, except that which is for immediate use.
- The proponent shall ensure that any non-combustible waste is disposed of appropriately at an approved facility.
- Any sumps, including those created for the disposal of drill cuttings, shall be located above the high water mark of any water body and in such a manner as to prevent the contents from entering any water body frequented by fish. Further, all sumps shall be backfilled upon completion of the field season and contoured to match the surrounding landscape.



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#### HAZARDOUS MATERIALS

- The proponent shall ensure that any hazardous materials, including waste oil, receive proper treatment and disposal at an approved facility.

If there are any changes in the proposed project, EC should be notified, as further review may be necessary. Please do not hesitate to contact me if you have any questions or comments with regards to the foregoing at (867) 975-4631 or by email via [david.abernethy@ec.gc.ca](mailto:david.abernethy@ec.gc.ca).

Regards,

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