

# **SURVEY OF KARST LANDFORMS IN THE SAHTU REGION (2008)**

**Summary Version**



**The full report may be obtained from NWT PAS  
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## **Short Description of report:**

The Northwest Territories (NWT) has many interesting landforms known as **karst** topography. Karst landscapes form where rock dissolves in water (e.g., limestone), creating features like sinkholes, caves, dry valleys and gorges, turloughs and poljes (large depressions drained underground by sinkholes within them, which are periodically flooded when the underlying caves become swamped with water). Karst landscapes sometimes contain 'disappearing' streams or underground rivers. Karst landscapes often have spectacular scenery and unique communities of plants and animals. Understanding the geology and the flow of ground waters through karst rocks can help to understand the environmental effects of various land uses.

Dr. Derek Ford, one of the world's leading karst experts, came to the NWT in July 2007. He did 4 days of aerial surveys to locate, photograph, and describe some of the karst sites in the Sahtu region. This report describes what he found, and gives his recommendations for protecting some of the most important karst sites. The report includes many photographs and descriptions of the karst features he surveyed.

There are some very interesting and significant karst sites in the Sahtu region. Some of these overlap with protected areas, proposed protected areas, and proposed conservation zones.

- Dr. Ford recommends that several sites should be protected as outstanding examples of karst features, including the Vermilion Creek sinkhole (between Norman Wells and Tulita), some features of the Mahony Dome (sinkhole 142, turlough 110 and the Disappearing River, located north of Mahony Lake), and the Ration Creek sinkhole (west of the Mackay Range).
- Bear Rock (just northwest of Tulita) is found to be very significant for the variety and high density of its karst, and is recommended for protection.
- In the Canol Trail area, there are many features of exceptional quality and significance (from the Plains of Abraham to Carcajou, Dodo and Katherine canyons, including Pyramid Lake Polje, Dodo Dry Canyon, Dodo West Karst Pavements, Dodo Breccia Drape Karst, Great Fan Landslide, Western Great Spillway and Fan, as well as the Bonus Lake Scablands and Moraine Polje). Dr. Ford feels that these sites in the Canol Trail area are so significant that they should be proposed as a UNESCO International Geopark. A Geopark proposal here would have an excellent chance of achieving UNESCO World Heritage status, which would likely attract international tourism.
- Lac Belot Ridge and its associated karst (located between Colville Lake and the Hare Indian River) were not surveyed in 2007. Dr. Ford recommends that this area should be studied because it is associated with the Sahtu story of Neyádalín (the Underground River) and is probably a very significant karst.