



CanNorth

BLACK LAKE

Athabasca Working Group Environmental Monitoring Program 2007

The Athabasca Working Group (AWG) environmental monitoring program has been going on since 2000 and provides Northerners the opportunity to test the environment around their communities for contaminants that could come from active uranium mining and milling operations. Contaminants can potentially be spread by water flowing from lakes near the uranium operations, and small amounts may also be spread through the air. In order to address public concerns, lakes, rivers, plants, wildlife, and air quality are tested in northern Saskatchewan near the communities of Black Lake, Uranium City, Stony Rapids, Fond-du-Lac, Wollaston Lake, and Camsell Portage.

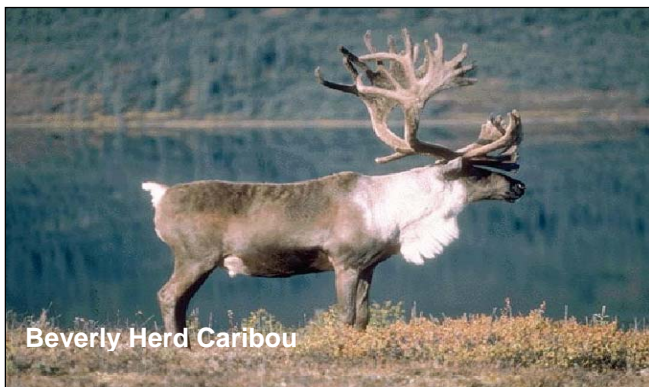


Boniface Robillard

Selection of the types of plants and animals sampled, the locations sampled, and the sample collections were carried out by, or with the help of, northern community members. The purpose of this brochure is to inform the public of the results from the 2007 environmental monitoring program completed in the Black Lake area.



The goal is to protect a remote living community with a proud history that goes back over 6000 years and to safe guard the wildlife that also lives in the environment.



Beverly Herd Caribou

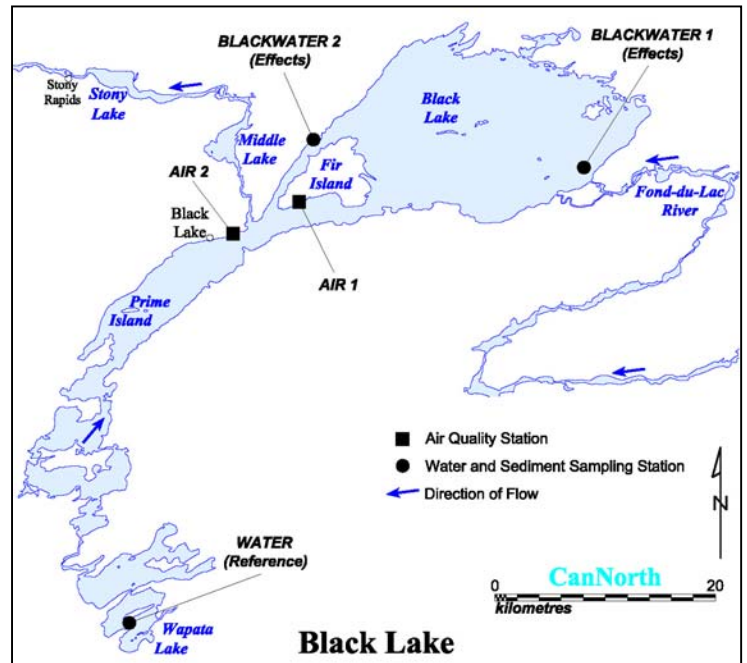


Ryan Washenfelder

STUDY AREA

Water, sediment, and fish are sampled from “reference” and potential “effects” sites and the measured contaminant levels are compared. Wapata Lake was chosen as the “reference” site because it is not expected to contain contaminants from uranium operations due to the direction of water flow. Black Lake was chosen as the potential “effects” site because it is located downstream of the uranium operations. Two different sites were sampled on Black Lake.

Air quality was also monitored at two locations near the community of Black Lake. Similarly, plant and wildlife samples were collected each year near the community.



KEY PARAMETERS

The focus is on certain contaminants related to uranium operations that are of concern to human and environmental health. These include: copper, lead, nickel, molybdenum, zinc, radium-226, uranium, selenium, and arsenic. All of these parameters occur naturally in the environment and in parts of northern Saskatchewan they can sometimes be found in high amounts. To help establish whether the key parameters found in samples are naturally occurring or whether they are from uranium operations, the amounts measured are compared: 1) between “reference” and potential “effects” sites, 2) between years, and 3) to available guidelines.

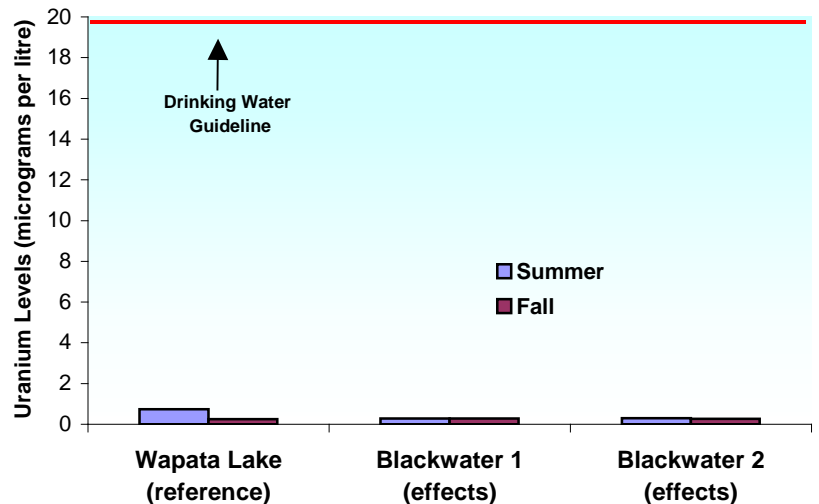


RESULTS

WATER

As in previous years, the levels of parameters measured in the 2007 water samples were all well below provincial guidelines for the protection of aquatic life and drinking water quality (see graph showing uranium level data). In fact, the levels of all key parameters were generally too low for the laboratory to detect. The consistently low levels of key parameters measured indicate the water from the Black Lake potential “effects” sites is not a concern for the northern residents.

2007 Uranium Levels in Water

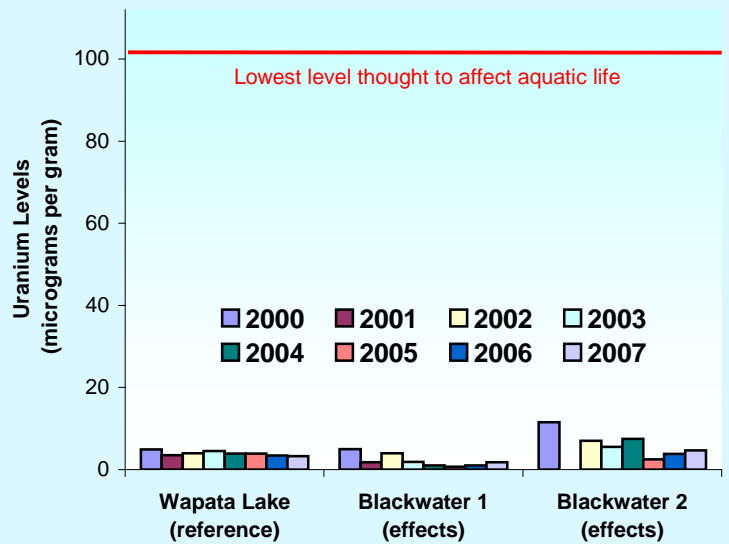


SEDIMENT

Sediment is the mud on the lake bottom. Contaminants from mine sites may be carried by flowing water to lakes where they can be left in the sediment. It is important to sample the sediment, because many different types of small animals that are eaten by fish live in the sediment. Sediment samples were collected from the same locations used for water sampling.

In the Black Lake area in 2007, as previous years, the levels of arsenic, copper, lead, and zinc all stayed below the federal "probable effects level" guideline. Arsenic levels at Blackwater 2 were slightly higher than when compared to the two other sites, therefore, this will continue to be monitored. Molybdenum, nickel, selenium, radium-226, and uranium (see graph) were also all below the suggested "lowest effect level." Below this level no harmful effects to aquatic life are expected to occur.

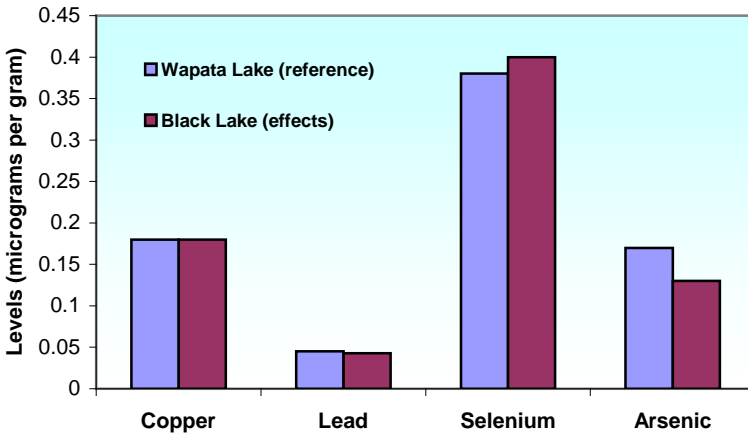
2000-2007 Uranium Levels in Sediment



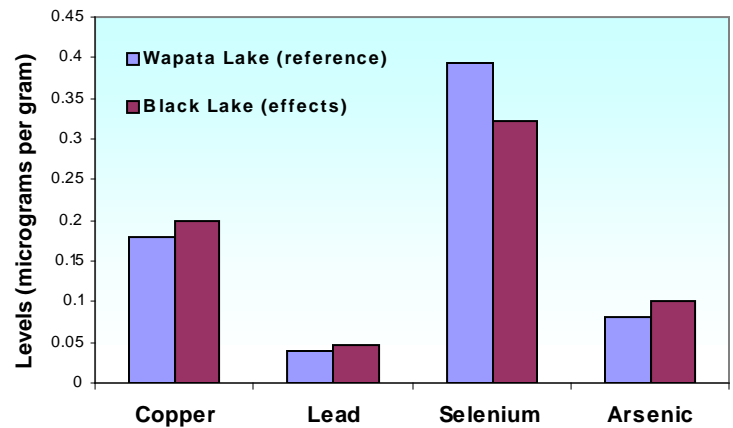
FISH

The levels of the key parameters measured in the 2007 fish flesh samples were similar between lakes and were similar to levels measured in previous sampling years. In the fish from both sites, the levels of several key parameters were too low to be detected by the laboratory. Overall, the levels of key parameters were within the expected range for the area (as seen in graph) and are not believed to be a concern for northern residents.

2000-2007 Average Levels in Lake Whitefish



2000-2007 Average Levels in Northern Pike

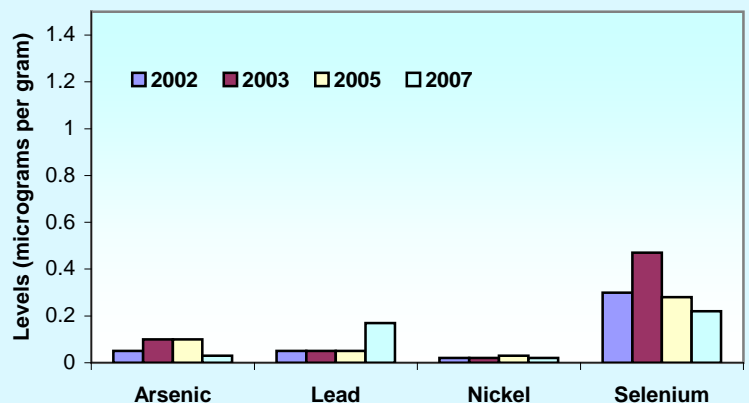


WILDLIFE

Caribou samples were collected from the Black Lake area in 2007. None of the contaminants measured appear to be increasing from year to year (as shown in graph). Moose samples collected near other northern communities in 2007 also had expected levels of the key parameters for the area.



2002-2007 Levels in Caribou

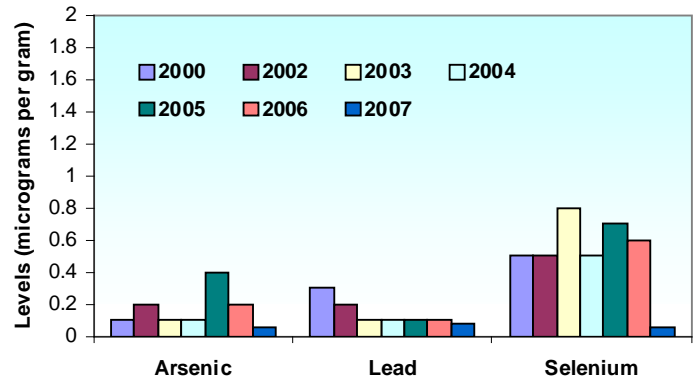


PLANTS

Samples of Labrador tea, and bog cranberries were collected near the community of Black Lake in 2007. The levels of key parameters in the plants were generally similar between sampling years (as seen in the graph showing the Labrador tea results) and were similar to levels measured in plants collected near other northern communities.



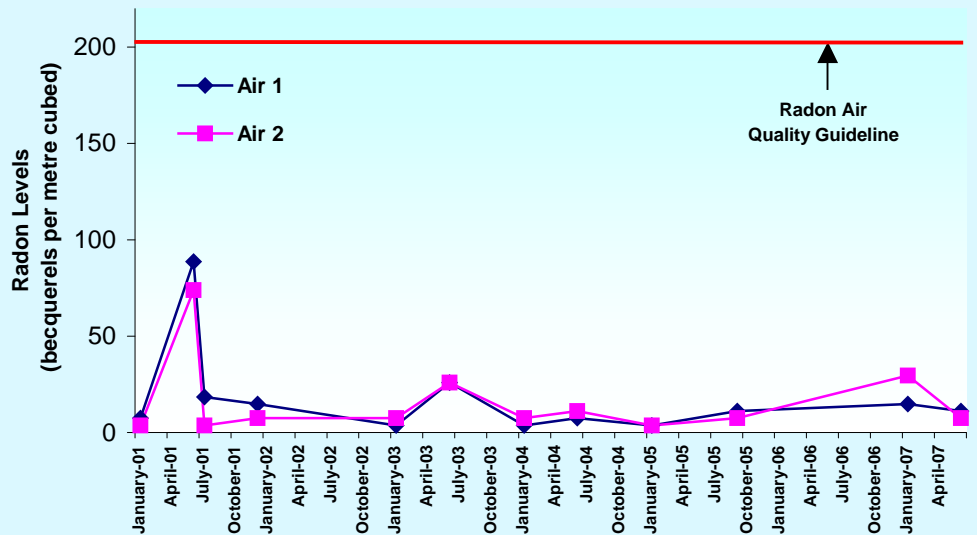
2000-2007 Levels in Labrador Tea



RADON

Air quality was monitored at two locations near the community of Black Lake by measuring radon levels. Radon is an odourless, tasteless gas produced naturally by the breakdown of uranium and radium-226 in the soil and water. As a result, radon levels are naturally higher in areas where uranium is found in the ground, especially in the summer months when the ground thaws and releases the gas into the air. Radon levels have remained low and show natural seasonal changes (as seen in graph).

Radon Levels from 2000-2007



CONCLUSION

The information collected in 2007 from the Black Lake study area was very similar to previous years. The levels of all key parameters measured in water and sediment samples were below guidelines and in many cases were so low that the laboratory could not measure them. Similarly, the levels of key parameters in the fish, caribou, and plant samples remained low and comparable to previous years. The results of the 2007 AWG environmental monitoring program do not indicate that there are any environmental or human health concerns near the community of Black Lake as a result of the operational uranium mining and milling projects.



THANK YOU

The involvement of community members was very important in planning and conducting the AWG program. Thank you to the AWG members, who include representatives from the seven northern communities and the industrial partners, Cameco Corporation and AREVA Resources Canada Inc. The AWG program thanks all the northern residents who participated in the AWG sample collections over the past years, especially Boniface Robillard who has done a great job collecting the samples from the Black Lake area.



This project was managed by CanNorth, an aboriginal environmental services company owned by Kitsaki Management. If you have any questions or comments please contact Peter Vanriel at (306) 652-4432.