



## **1. Uranium Exploration Procedures**

The Mouse Lake Project is in the grassroots exploration drilling stage. A major component of the program is the search for uranium deposits, therefore procedures have been established to provide a safe workplace for employees and cause the minimum of harm to the environment. The guidelines are based on the Mineral Industry Environmental Protection Regulations (Sask. 1996); the Environmental Management and Protection Act (Sask. 2002); the Canadian Transportation of Dangerous Goods Act; and Cameco's Exploration Radiation Safety Program Manual. The procedures will be revised if the grassroots program is successful in identifying a deposit warranting a more intensive, delineation drill program.

At each drill site a suitable natural depression is sought to serve as a sump for the disposal of cuttings, sludge and return water that can not be re-circulated during the drilling process. The sump must be a minimum of 30 meters above the ordinary high water mark of any adjacent water body, where direct flow into a water body is not possible and no additional impacts are created. Upon completion of the hole, the sump will be backfilled and restored to the pre-existing natural contour of the land.

If uranium mineralization is encountered in a drill hole, the drill mud solids or cuttings with a uranium concentration greater than 0.05 per cent must be collected pending completion of the hole at which time they will be disposed down the drill hole and sealed by grouting the upper 30 meters of bedrock.

Any drill hole that encounters mineralization with a uranium content greater than 1.0 per cent over a length of > 1.0 metre, and with a metre-per-cent concentration > 5.0, will be sealed by grouting over the entire length of the mineralization zone and not less than 10 metres above or below each mineralization zone. The top 30 metres of the hole within bedrock will also be sealed by grouting once any radioactive cuttings and sludge have been disposed down the hole.

Peak Drilling has experience in drilling and grouting in areas of permafrost. The system for grouting will involve inserting a Van Ruth plug at the bottom of the interval and then filling to the top of the interval a mixture of Portland cement and Super Set. The latter component accelerates the hardening time of the cement to allow it to set before the hole freezes. It also counteracts the interference with cement hardening by the salt



content of the standing water in the hole. A description of the plug and additive are attached with the MSDS appendix.

A separate logging tent will be used at the camp for handling and temporary storage of radioactive core having a uranium content greater than 1.0 percent over a length of > 1.0 metre. Once the uranium content has been established by assaying, a decision will be made on the long range storage of the core. If stored on the property, it must be a minimum of at least 30 metres above the high water mark of any adjacent water body, where any direct flow into a water body is not possible and no additional impacts are created. Additionally, radiation levels must be reduced to less than 1.0  $\mu\text{Sv}$  measured at 1 metre from the surface and in no instance will the level be allowed to exceed 2.5  $\mu\text{Sv}$ . To avoid the difficulties involved with long term storage of highly radioactive core on the property, the Company will ship the mineralized intersections, with greater than the minimum radiation levels stated above, in their entirety to the Saskatchewan Research Council laboratory in Saskatoon. The core will in all probability undergo further testing and any remnants will be stored in the laboratory's approved radioactive materials storage facility.

Hornby Bay Exploration Limited has a contract with the National Dosimetry Services branch of Health Canada to provide monitoring of radiation exposure for the personnel involved with core or samples that may contain radioactive minerals. Each individual is provided with a badge which they carry on their torso at all times. The badges are replaced every three months. The used badges are read and a report on radiation exposure levels is provided by NDS for each individual.

The shipping of radioactive materials (Class 7) from the Project site is controlled by the Transportation of Dangerous Goods Act and Regulations. The Regulations stipulate that Low Specific Activity consignments will be shipped as Excepted Packages if the radiation on the external surface does not exceed 5 $\mu\text{Sv/hr}$ . The container must bear the UN Number PTNSR 17(2) and contain a marking of "radioactive" on an internal surface that is visible upon opening the package. The Company has an 'INSPECTOR' dose level meter manufactured by Canadawide Scientific Limited to determine radiation levels in Sieverts as well as scintillometers for general cps levels and a spectrometer to differentiate the radiation by mineral type. The Project Manager has a certificate in the Packaging & Transport of Radioactive Materials.