



Western Uranium Corporation

Uranium Exploration Plan

NWB License No. 2BE-SAN0709

Western Uranium's Sand Lake Project is a grassroots exploration program searching for uranium deposits in Nunavut. Activities and standard operating procedures (SOPs) normally associated with exploration programs can potentially create adverse effects in the workplace and on the environment in general and water resources in particular when uranium is the target mineral. The principal ways in which this can happen are by exposure of naturally occurring radioactive materials to the air and water by surface exploration techniques such as trenching or stripping, or by sub-surface techniques such as drilling. Extraction of radioactive materials by digging or drilling creates potential hazards in the workplace and to the environment if waste materials and samples are not properly handled or stored or if the extraction hole is not adequately sealed. Western Uranium has developed a plan that incorporates guidelines and procedures designed to mitigate these potentially hazardous conditions.

EXPLORATION PROCEDURES

Procedures to monitor, minimize and mitigate possible effects on the environment and provide a safe workplace for employees have been adopted from established government guidelines including the Mineral Industry Environmental Protection Regulations (Saskatchewan 1996), The Environmental Management and Protection Act (Saskatchewan 2002), the Canadian Transportation of Dangerous Goods Act and Mineral Exploration Guidelines For Saskatchewan (2005).

Drilling Operations

All drilling operations on land are to be located at least 30 meters above the ordinary high water mark of any water body. At each drill site a suitable natural depression will be 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 also 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. GPS locations of all drill holes and reclaimed sumps will be recorded on the appropriate drill log and summarized annually for NWB.

Western personnel or contractors will monitor radioactivity levels in core from the holes and cuttings in the sump using a calibrated scintillometer. If uranium mineralization is encountered in a drill hole, the drill mud solids or cuttings with a



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uranium concentration greater than 0.05 per cent will 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 in the hole. Any drill hole that encounters mineralization with 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.

Western will utilize a drilling contractor (the current contractor is Titan Drilling) that has experience in drilling and grouting in areas of permafrost. The system for grouting currently involves 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 of the salt content of the standing water in the hole with cement hardening.

Core Logging and Storage

Core will be logged in a separate facility located at least 50 meters from residences and eating facilities. All cores will be stored in a nearby location that is at least 30 metres above the high water mark of any adjacent water body and care will be taken to ensure that the location is such that no direct flow into a water body is possible. All core boxes containing cores having uranium content greater than 1.0 percent over a length of greater than 1.0 metre will be stored in a separate storage area isolated from the main storage area and logging facility which will be plainly marked as a radioactive area and to which access will be restricted by means of a physical barrier. Additionally, radiation from these isolated core intervals will be reduced to less than 1.0 μSv measured at 1 metre from the surface through the use of protective packing or shielding. In no instance will the level of radiation for the restricted core storage area be allowed to exceed 2.5 μSv . A long term plan for storage of highly radioactive core off the property will be developed and this plan will be amended when that situation arises. The long term plan will take into consideration restrictions placed on the shipment and storage of radioactive materials as stipulated by the Transportation of Dangerous Goods Act and subsequent regulations.

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 $\mu\text{Sv/hr}$. All



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containers shipped from the Project site will be clearly marked with UN Number PTNSR 17(2) and will contain a marking of “radioactive” on an internal surface that is visible upon opening the package. Core and surface samples will be shipped via chartered aircraft to the Acme Analytical prep facility in Yellowknife, NT. Acme has specific procedures and policy for the handling and storage of radioactive materials received by this facility.

Personnel and Handling of Radioactive Materials

All drilling and geological personnel will utilize personal dosimeter badges as part of Western’s monitoring of radiation exposure for those who may potentially be exposed to radioactive materials, especially drill core. These badges will be worn on the torso at all times while working in the designated work areas such as core drill and logging tent. The badges are replaced monthly. The used badges are read and a record of radiation exposure levels is kept for all individuals. In addition, personnel involved in the handling, logging, splitting and storing of identified intervals of radioactive core will be required to use protective coveralls, gloves and eyewear while performing those duties. Soiled coveralls and eyewear will be cleaned regularly and soiled gloves will be safely stored for disposal in an approved off site facility.