



P.O. Box 119  
GJOA HAVEN, NU X0B 1J0  
TEL: (867) 360-6338  
FAX: (867) 360-6369

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NUNAVUT IMALIRIYIN KATIMAYINGI  
NUNAVUT WATER BOARD  
OFFICE DES EAUX DU NUNAVUT

## WATER LICENCE APPLICATION FORM

Application for: (check one)

☒ **New**      ☐ **Renewal**      ☐ **Amendment**      ☐ **Assignment**      ☐ **Cancellation**

### LICENCE NO:

(for NWB use only)

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                 |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <b>1. NAME AND MAILING ADDRESS OF APPLICANT/LICENSEE</b><br><br><u>Uranium North Resources Ltd.</u><br><u>510-510 Burrard Street</u><br><u>Vancouver, B.C. V6C 3A8</u><br><br>Phone: <u>604-484-2212</u><br>Fax: <u>604-484-7143</u><br>e-mail: <u>g.gill@diamondsnorth.com</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>2. ADDRESS OF CORPORATE OFFICE IN CANADA (if applicable)</b><br><br>_____<br><br>Phone: _____<br>Fax: _____<br>e-mail: _____ |
| <b>3. LOCATION OF UNDERTAKING</b> (describe and attach a topographical map, indicating the main components of the Undertaking)<br><b>Amer Lake Project, Nunavut</b><br><br>Latitude: (63°33'30" N)      Longitude: (96°37'30" W)<br>NTS Map Sheet No. <u>66H/7, 9, 10</u> Scale: <u>1:50,000</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                                                 |
| <b>4. DESCRIPTION OF UNDERTAKING</b> (attach plans and drawings)<br><br><p>The purpose of Uranium North Resources' Ltd (UNR) operations is to explore for uranium mineralization within the Amer Lake Project. The project is considered a grassroots or reconnaissance exploration program and will involve activities such as airborne and ground geophysics, prospecting, mapping; existing drill holes on the property will be surveyed and previously produced core will be sampled and analyzed. Surface rock and soil geochemical sampling throughout the project area will also be undertaken and fresh bedrock samples will be collected through the use of a diamond drill.</p> <p>All activities including the establishment of a 10-12 man temporary camp will take place within the boundaries of permit blocks 6973, 6974, 6975 6972 as shown on the attached map figure 1. The camp will consist of four accomodation tents (14'x16') one kitchen tent (16'x14'), one core shack tent (14'x16'), one Dry tent (14'x16'), one first aid tent (14'x 16') one office tent (14'x16'), one outhouse, one generator shack, one burning barrel and one helicopter pad. Following Uranium North's Fuel Spill Contingency Plan (Attachment 1) each fuel cache and drill site will be equipped with a spill kit.</p> <p>After results obtained from the geophysical surveys, mapping/prospecting and surface geochemical sampling programs are evaluated a number of diamond drill targets (approximately 10 holes per year)</p> |                                                                                                                                 |

will be identified.

A light weight helicopter-portable drill (Boyles JKS 300) will be used to obtain core samples of the bedrock. These drill holes will each be approximately 100-200 metres deep and could be widely spaced throughout the project area.

No land based drill holes will be located within 30 metres of the ordinary high water mark of any water bodies. The drill will be moved by helicopter between hole locations. All crews will also be shuttled daily between camp and work areas by helicopter. The foot print of each drill pad will be kept to a minimum size of approximately 10 metres by 10 metres. Pad construction will involve the placement of two parallel wooden timbers (6" x 6" x 10-12') onto the ground on which the frame of the drill and shack will be placed. The only ground clearing needed for this type of drill set-up will involve the removal of any larger, protruding boulders by hand and/or minor brush clearing. Absorbant matting will be used to collect any oils and lubricants which may be sourced from operating the drill. Drip trays will be used at all fueling and refueling areas. Once drilling at a particular site is completed the timbers will be removed for use at the next drill site. All used absorbant matting, garbage and fuel drums will be backhauled off the property and transported to Baker Lake where Peter's Expediting, acting as Uranium North's agent will dispose of this material in an approved disposal facility.

All drill cuttings, water return and sludge will be disposed of in a properly constructed sump or natural depression no closer than 30 metres from the ordinary high water mark of any waterbody. The uranium or gamma radiation count for these sludges and drill cuttings will be monitored and properly managed. In the event that significant uranium mineralization is intersected in any drill hole, the Best Management Practises (BMP-010) developed for mineral exploration in Saskatchewan, specific to uranium will be implemented. In accordance with these Best Management Practices all drill cuttings containing >0.05% uranium (1000 counts per second on a callibrated Scintillometer) will be placed back down the drill hole and the drill hole will be sealed with grout. Additionally, any drill hole intersecting uranium mineralization >1% over a length of >1 metre and with a metre-percent concentration > 5.0 will be grouted over the entire length of the mineralized zone and not less than 10 metres above or below each mineralized zone. All land based artesian holes (drill holes which produce water after completion) will be documented, plugged and sealed with grout. Saskatchewan's Best Management Practices - Drilling Operations and the Handling of Uranium Mineralization are found in Attachment II.

If analysis of the geophysical results identify potential drill targets under water bodies, these targets will be drilled after sufficient ice has formed on these waterbodies. Similar to land base drill pads, described above, the drill will be placed and leveled on timbers. Absorbant matting will be used to collect greases and oils and drip trays will also be used at fueling and refueling stations. The drill stem will be cased from the drill rig through the lake water and into bedrock. This is necessary for drilling accuracy and in order to allow for complete recovery of all drilling fluids. As is the case for all land base drilling any additives used in the drill fluids will be biodegradeable environmentally friendly additives. While drilling from the ice all drill fluids will be recirculated from the cutting face to a tank located near the drill on the ice. All drill cuttings collected in this mixing tank will be scanned for uranium content. If the uranium content of these sludges is < 0.05 % uranium the sludges will be disposed of in a land based sump no closer than 30 metres from the ordinary high water mark of any water body. If they contain >0.05% uranium they will be disposed of in a manner identical to that described for land based drilling. Only a limited amount of fuel necessary to support the drill will be located on the ice. This supply will be replenished from the nearest centrally located land based

fuel cache on an as needed basis. All ice based holes will be sealed with grout below the lake bottom and all casing between the lake bottom and ice will be removed. If uranium mineralization is encountered from ice based drilling Saskatchewan's Best management Practice BMP-011 will be followed. BMP-011 is located in Attachment II of this application.

Fuel to be used for this operation will be cached in quantities of up to 40-50 drums of Jet-A and diesel at a cache site (as yet undetermined) centrally located near the potential drill sites or at camp. This location will be finalized once the drill targets have been identified. Only 2-3 drums of diesel and 3-4 100 pound bottles of propane will be located at the drill (Refer to Fuel Spill Contingency Plan). Drill and camp fuel method of transfer will be gravity feed or by manual pump. Helicopters will use a conventional DC electric barrel pump.

All core recovered from the diamond drilling will be transported to camp, where it will be logged and sampled. The core boxes will then be stored in core racks or cross stack in piles not exceeding 1 metre in height. If uranium mineralization is present in the core the storage areas will be monitored for radiation to ensure that radiation levels are below 1 microsevert per hour (uS/hr) at a distance of 1 metre from the core. At no time will the radiation levels of a core storage area be allowed to exceed 2.5 uS/hr.

Uranium North's Radiation Protection policies are documented in Attachment III of this application. Briefly, radiation protection for workers in uranium exploration is based on reducing the workers exposure to radiation to As Low As Reasonably Achievable (ALARA). Uranium North has adopted and incorporated this principal into their worker health and Safety and Radiation Protection Policy by directly adopting the Radiation protection Guidelines for uranium Exploration developed by Saskatchewan department of Labour.

5. **TYPE OF PRIMARY UNDERTAKING** (A supplementary questionnaire **must** be submitted with the application for undertakings listed in "**bold**")

- |                                                                                               |                                                                 |
|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| <input type="checkbox"/> <b>Industrial</b>                                                    | <input type="checkbox"/> Agricultural                           |
| <input checked="" type="checkbox"/> <b>Mining and Milling</b> (includes exploration/drilling) | <input type="checkbox"/> <b>Conservation</b>                    |
| <input type="checkbox"/> <b>Municipal</b> (includes camps/lodges)                             | <input type="checkbox"/> Recreational                           |
| <input type="checkbox"/> Power                                                                | <input type="checkbox"/> <b>Miscellaneous</b> (describe below): |

See Attachment IV Remote Camp Questionnaire

See Schedule II of *Northwest Territories Waters Regulations* for Description of Undertakings

**6. WATER USE**

- |                                                                     |                                                                 |
|---------------------------------------------------------------------|-----------------------------------------------------------------|
| <input checked="" type="checkbox"/> To obtain water                 | <input type="checkbox"/> Flood control                          |
| <input type="checkbox"/> To cross a watercourse                     | <input type="checkbox"/> To divert a watercourse                |
| <input type="checkbox"/> To modify the bed or bank of a watercourse | <input type="checkbox"/> To alter the flow of , or store, water |
| <input type="checkbox"/> Other (describe):                          |                                                                 |

**7. QUANTITY OF WATER INVOLVED** (cubic metres per day including both quantity to be used and quality to be returned to source)

**Water use**    ☒ 100m<sup>3</sup>/day or less  
☐ Greater than 100m<sup>3</sup>/day; if greater, indicate quantities to be used for each purpose (camp, drilling, etc.)

**Water returned to source**  
\_\_\_\_\_ m<sup>3</sup>/day

**8. WASTE** (for each type of waste describe: composition, quantity (cubic metres per day), methods of treatment and disposal, etc.)

- |                                                             |                                               |
|-------------------------------------------------------------|-----------------------------------------------|
| <input checked="" type="checkbox"/> Sewage                  | <input checked="" type="checkbox"/> Waste oil |
| <input checked="" type="checkbox"/> Solid Waste             | <input checked="" type="checkbox"/> Greywater |
| <input checked="" type="checkbox"/> Hazardous               | <input checked="" type="checkbox"/> Sludges   |
| <input checked="" type="checkbox"/> Bulky Items/Scrap Metal | <input type="checkbox"/> Other (describe):    |

**Sewage:** Sewage will be deposited in a pit dug below an erected outhouse. The outhouse and pit will be no closer than 30 metres from the ordinary high water mark of any water body.

**Solid Waste:** Burnable solid waste will be transported to camp where it will be burned in a vented, base fuel fed burning barrel. The ashes will be placed in barrels and transported by Peter's Expediting, on behalf of Uranium North Resources, to an approved disposal site in Baker Lake.

**Hazardous Waste:** All hazardous wastes will be collected and properly stored at camp until such time that these wastes can be transported to the nearest approved Hazardous Waste disposal facility.

**Bulky Items/Scrap Metal:** All non-burnable wastes or scrap metals, such as spent drill equipment will be collected and appropriately stored at camp until it can be transported to an approved disposal site. Uranium North will also contract Peter's Expediting to manage the appropriate disposal of this material.

**Waste Oil:** All waste oil will be collected and properly stored at camp until such time that it can be transported to an approved disposal site in Baker Lake by Peter's Expediting, of Baker Lake, NU.

**Greywater:** Greywater produced in the kitchen and Dry facilities will be gravity fed to a hand dug sump or natural depression located no closer than 30 metres from the ordinary high water mark of any water body.

**Sludges:** All drill sludges will be collected in a hand dug collection sump or natural depression located no less than 30 metres from the ordinary high water mark of any water body. These sludges will be allowed to settle. After settling and prior to sealing off the drill hole a scintillometer (a device calibrated to read radiation) will be used to determine whether or not the sludges contain any uranium mineralization. The Best management Practices (BMP-010) developed as part of the Mineral Exploration Guidelines for Saskatchewan will be followed. BMP-010 states that any drill mud solids or cuttings which contain a uranium concentration greater than 0.05% will be collected and disposed of down the drill hole, following placement of these sludges down the whole the hole will be sealed.

**9. OTHER PERSONS OR PROPERTIES AFFECTED BY THIS UNDERTAKING** (give name, mailing

address and location; attach if necessary)

None. Work area is remote

**Land Use Permit**

DIAND

☐ Yes ☒ No If no, date expected June 1, 2007

Regional Inuit Association

☐ Yes ☒ No If no, date expected \_\_\_\_\_

Commissioner

☐ Yes ☒ No If no, date expected \_\_\_\_\_

**10. PREDICTED ENVIRONMENTAL IMPACTS OF UNDERTAKING AND PROPOSED MITIGATION MEASURES (direct, indirect, cumulative impacts, etc.)**

Cumulative environmental effects result from the combination of environmental effects from a number of different developments/activities. As the proposed program represents the only exploration activity in the area no cumulative effects are expected.

Potential localized impacts include minor to negligible effects on caribou, harvesting activities, waterfowl and the environment.

Uranium North Resources Ltd. is fully committed to implementing its proposed uranium exploration project on the Amer Lake property in an environmentally responsible manner to protect and sustain the environmental and cultural resources of the project area. The exploration program described above will have no to very low impact to the environment and/or wildlife. Water use-age will be minimal (up to 80 cubic metres/day) and restricted to drill and domestic use at the temporary camp only. Drill operations will be conducted in an environmentally friendly manner and fuel caches will be checked daily for potential leakage. Helicopter useage for purposes of supporting drilling operations is and has been the standard practice of many exploration companies now and in the past with no impact to wildlife or the environment. Pilots will be instructed to avoid wildlife during operations. Congregations of wildlife are not expected in the area but will be avoided should any be encountered. The total estimated surface disturbance for all of the drill sites (approximately 10 for each year of the permit) is estimated to be a maximum of 0.01 ha/year. The small quantities of benign drilling wastes (0.14 m<sup>3</sup>/ 100 m drilled) generated at each drill site will be deposited in natural depressions or sumps and will affect small areas of sparsely vegetated tundra within the footprint of the disturbed area at each drill site. It is Uranium North's policy to perform progressive restoration so that each drill site is restored as near as possible to its original state before moving to the next setup. This includes the removal of all garbage, fuel drums and equipment. All constructed sumps will also be backfilled. Before and after pictures of each site will be taken and made available for the public record.

In total, the residual environmental effects of Uranium North's entire drilling program on the Amer Lake property are expected to be negligible. No other mineral exploration activities or other industrial development projects are currently known or planned for the area, which further reduces the potential for cumulative effects.

There will be no deleterious effects to water quality due to the protection measures outlined by DIAND which includes restrictions as to how close to waterbodies the drill, sumps and fuel caches are allowed.

It is also recognized that portions of these areas may contain significant archaeological, cultural and historic sites. Any archaeological sites encountered will not be disturbed. If a site is found during operations, work in that vicinity will stop, a 30 metre buffer around the area will be established, the site will be photographed and GPS coordinates will be recorded. This information will then be reported to the Prince of Wales Northern Heritage Centre. As the project area is located approximately 150 kms north-northwest of Baker Lake no negative socio-economic impacts will occur. The Company will also encourage all contractors operating on the project to hire locally.

All incinerator residual, non-combustible garbage and empty drums will be backhauled to Baker Lake where Peter's Expediting, as Uranium North's agent will dispose of the material at approved waste disposal facilities.

Mitigation measures to be undertaken to reduce, control or eliminate potential environmental effects include;

- 1) Adhering to the Caribou Protection Measures; specifically not working in any core calving areas.
- 2) Avoiding low level flights over areas known for waterfowl nesting.
- 3) Adhering to the Recommended Environmentally Acceptable Minimum Flight Altitudes.
- 4) Equipping all water intake hoses with an appropriate screen mesh size to ensure no entrapment of fish.
- 6) Provide necessary controls to prevent sedimentation and/or erosion of water bodies or adjacent land.
- 7) Using only lake water for drilling operations.
- 8) All drill waste will be disposed of and contained in natural depressions or hand dug sumps located at least 30 meters from any high water mark such that the waste does not enter any water bodies. As virtually 95% of the rock cored is brought to the surface and transported to camp (and then to the laboratory), the volume of drill waste created for a 100 meter long hole is only 0.14 cubic meters. Saskatchewan's Best Management Practices (BMP-010 and BMP-011) as discussed previously will be adhered to when uranium mineralization is encountered.
- 9) All trenches/pits/sumps will be backfilled and contoured when operations are complete.
- 10) Only environmentally acceptable and approved muds and additives (as per DIAND regulations) are to be used during drilling operations.
- 11) Drill holes to be plugged and permanently sealed if artesian flow is encountered.
- 12) All fuel caches will be located a minimum of 30 meters from the normal high water mark. Spill kits will be present at all fuel caches and drilling operations.
- 13) Uranium North possesses and maintains a current Emergency Response Plan including a Fuel Spill Contingency Plan that all employees and contractors are required to adhere to. These policies also include safety, emergency, fire and medi-vac procedures.
- 14) Uranium North also maintains a progressive reclamation policy which effectively restores, as near as possible, any disturbance at any site to its original state before operations begin at the next site.

NIRB Screening ☒ Yes ☐ No If no, date expected \_\_\_\_\_

#### 11. INUIT WATER RIGHTS

Will the project or activity substantially affect the quality, quantity, or flow of water flowing through Inuit Owned Lands and the rights of Inuit under Article 20 of the Nunavut Land Claims Agreement?

No. All work to be conducted in a professional and environmentally sound manner to ensure no impact to local waterbodies occurs and that water quality is not compromised. The property covers no Inuit Owned Lands.

If yes, has the applicant entered into an agreement with the Designated Inuit organization to pay compensation for any loss or damage that may be caused by the alteration. If no compensation agreement has been made, how will compensation be determined?

#### 12. CONTRACTORS AND SUB-CONTRACTORS (name, address and functions)

Charter Aircraft:

- 1)First Air – Yellowknife, NT
- 2)Canadian North – Yellowknife, NT
- 3)Great Slave Helicopter - Yellowknife, NT
- 4)Ookpik Aviation - Baker Lake, NU

Expiting:

- 1) Peter's Expediting - Baker Lake, NU

Supplies:

- 1)Co-op store in Baker Lake  
 2)Basset Petroleum - Yellowknife, NT  
 3)

Drilling:  
 Heath and Sherwood Drilling

Airbourne Geophysical Survey:

- 1)Terraquest - Markham, Ontario  
 2)

**13. STUDIES UNDERTAKEN TO DATE** (list and attach copies of studies, reports, research, etc.)

**Only a request for site information from the Department of Culture, Language, Elders and Youth regarding Nunavut Archaeological sites. None reported in area of work program.**

**14. THE FOLLOWING DOCUMENTS MUST BE INCLUDED WITH THE APPLICATION FOR THE REGULATORY PROCESS TO BEGIN**

Supplementary Questionnaire (where applicable: see section 5) ☒ Yes ☐ No If no, date expected \_\_\_\_\_

Inuktitut and/or Inuinnaqtun/English Summary of Project ☒ Yes ☐ No If no, date expected \_\_\_\_\_

Application fee of \$30.00 (Payee Receiver General for Canada) ☒ Yes ☐ No If no, date expected \_\_\_\_\_

Water Use fee of \$30.00 (unless otherwise indicated in Section 9 of the *NWT Waters Regulations*; Payee Receiver General for Canada)

☒ Yes ☐ No If no, date expected \_\_\_\_\_

**15. PROPOSED TIME SCHEDULE** (unless otherwise indicated, the NWB will consider the application for a five (5) year term)

☐ one year or less (or) ☒ Multi Year

Start Date: June 1, 2007 Completion Date: June 1, 2012

Graham Gill  
 Name (Print)

Consulting Geologist  
 Title (Print)

\_\_\_\_\_  
 Signature

May 10, 2007  
 Date

**For Nunavut Water Board office use only**

**APPLICATION FEE** Amount: \$\_\_\_\_\_ Pay ID No.: \_\_\_\_\_

**WATER USE DEPOSIT** Amount: \$\_\_\_\_\_ Pay ID No.: \_\_\_\_\_